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**Tuesday**  
**November 25, 1986**

**Briefings on How To Use the Federal Register—**  
For information on briefings in New York, NY, and Pittsburgh,  
PA, see announcement on the inside cover of this issue.

# Federal Register



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## THE FEDERAL REGISTER

### WHAT IT IS AND HOW TO USE IT

- FOR:** Any person who uses the Federal Register and Code of Federal Regulations.
- WHO:** The Office of the Federal Register.
- WHAT:** Free public briefings (approximately 2 1/2 hours) to present:
1. The regulatory process, with a focus on the Federal Register system and the public's role in the development of regulations.
  2. The relationship between the Federal Register and Code of Federal Regulations.
  3. The important elements of typical Federal Register documents.
  4. An introduction to the finding aids of the FR/CFR system.
- WHY:** To provide the public with access to information necessary to research Federal agency regulations which directly affect them. There will be no discussion of specific agency regulations.

#### NEW YORK, NY

- WHEN:** December 5 at 10:00 a.m.
- WHERE:** Room 305A, 26 Federal Plaza, New York, NY
- RESERVATIONS:** Arlene Shapiro or Stephen Colon, New York Federal Information Center, 212-264-4810.

#### PITTSBURGH, PA

- WHEN:** December 8 at 1:30 p.m.
- WHERE:** Room 2212, William S. Moorehead Federal Building, 1000 Liberty Avenue, Pittsburgh, PA
- RESERVATIONS:** Kenneth Jones or Lydia Shaw
- Pittsburgh: 412-644-INFO
- Philadelphia: 215-597-1707, 1709

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# Presidential Documents

Title 3—

Proclamation 5575 of November 20, 1986

The President

National Home Care Week, 1986

By the President of the United States of America

## A Proclamation

Home health care is an American tradition. When illness strikes our loved ones, we wish to care for them at home unless hospital or other care is clearly needed. This care is supplemented by the many members of our system of home health care providers who give special assistance to families and can make the difference in preventing, postponing, or limiting institutional care.

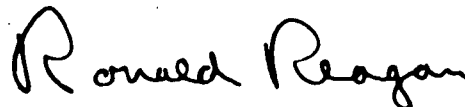
Our home health care system includes untold numbers of churches, volunteer groups, private agencies, and families, as well as government programs. All Americans can be proud of this effort for those in need, and of this national commitment to our American values of strong family life and neighbor helping neighbor.

Let us continue to emphasize the benefits of home health care. Let us also give much-deserved thanks and recognition to the dedicated men and women of our home health care system who help us care for our loved ones, preserve their independence, and keep our families intact.

The Congress, by Public Law 99-535, has designated the week of November 30 through December 6, 1986, as "National Home Care Week" and authorized and requested the President to issue a proclamation in observance of this week.

NOW, THEREFORE, I, RONALD REAGAN, President of the United States of America, do hereby proclaim the week of November 30 through December 6, 1986, as National Home Care Week, and I call upon the appropriate government officials, interested organizations and associations, and all Americans to observe this week with appropriate activities.

IN WITNESS WHEREOF, I have hereunto set my hand this twentieth day of November, in the year of our Lord nineteen hundred and eighty-six, and of the Independence of the United States of America the two hundred and eleventh.





## Presidential Documents

Proclamation 5576 of November 21, 1986

### National Family Week, 1986

By the President of the United States of America

#### A Proclamation

Family life and the life of freedom are interdependent. In the arena of the family, children learn the most important lessons they will ever receive about their inherent dignity as individuals. They learn as well about the social and religious traditions that unite generation to generation, and they begin to acquire the values for which their ancestors sacrificed so much for freedom.

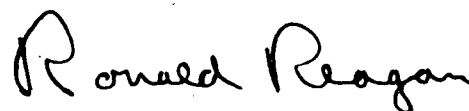
The centrality of the family is acknowledged even by those forces that would weaken or destroy it. Totalitarian societies see in the family a natural enemy, a bulwark of basic loyalties and inherited ideals that places allegiance in relationships that precede the claims of the state. Corrosive influences such as illegal drugs and pornography seek to substitute for the permanent bonds of family life a transient and ultimately false sense of happiness and fulfillment. Against these forces the family can often seem helpless and ineffective, but experience shows that it is in being tested that the strength of the family finally reveals itself. After all, the family has been with us from the dawn of human history, and there is no reason to believe that it will not endure.

National Family Week affords all Americans the opportunity to frankly face and assess the quality of family life in our Nation and to reflect on what each of us can do as a father, daughter, mother, son, or grandparent—as a member of a family—to strengthen this divine institution. Better yet, let us undertake this reflection as families and as a family of free people. As Chesterton said, "The family is the test of freedom." Let us make this another test America refuses to fail.

The Congress, by Public Law 99-94, has authorized and requested the President to issue a proclamation in observance of "National Family Week."

NOW, THEREFORE, I, RONALD REAGAN, President of the United States of America, do hereby proclaim the week of November 23, 1986, as National Family Week. I invite the Governors of the several States, the chief officials of local governments, and all Americans to celebrate this week with appropriate ceremonies and activities. Taking note that this observance coincides with the celebration of Thanksgiving, I ask that all Americans give thanks to God on that day for the blessings of family life in our Nation and for His continued favor on our people.

IN WITNESS WHEREOF, I have hereunto set my hand this twenty-first day of November, in the year of our Lord nineteen hundred and eighty-six, and of the Independence of the United States of America the two hundred and eleventh.





# Rules and Regulations

Federal Register

Vol. 51, No. 227

Tuesday, November 25, 1986

This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

## SMALL BUSINESS ADMINISTRATION

### 13 CFR Part 140

#### Debt Collection; Income Tax Refund Offset

**AGENCY:** Small Business Administration.  
**ACTION:** Final rule and request for comments.

**SUMMARY:** Section 2653 of the Deficit Reduction Act authorizes the Secretary of the Treasury to offset the income tax refund due an individual taxpayer who has a delinquent debt obligation to the Federal Government when other collection efforts have failed to recover the amount due. This rule provides that the Administrator of the Small Business Administration or his designee may notify the Internal Revenue Service that an individual is responsible for a past-due, legally enforceable debt so that an income tax refund offset can be effectuated. It also provides definitions and guidelines for uniform application of the process. Due to the immediate need for these procedures, the Small Business Administration publishes them as a final regulation with an invitation to comment.

**DATES:** Effective November 25, 1986, through December 31, 1987. Comments to be received by January 26, 1987.

**ADDRESS:** Send comments to: Fred Hanus, Financial Analyst, Office of Portfolio Management, Small Business Administration, 1441 L Street, NW., Room 813, Washington, DC 20416.

**FOR FURTHER INFORMATION CONTACT:** Fred Hanus, Financial Analyst, Office of Portfolio Management, Small Business Administration, 1441 L Street, NW., Room 813 Washington, DC 20416. Telephone (202) 653-6900 (This is *not* a toll free number).

**SUPPLEMENTARY INFORMATION:** These regulations are adopted to implement 31 U.S.C. 3720A. That statute authorized

agencies to notify the Internal Revenue Service (IRS) that individuals owe the Agency past-due legally enforceable debts. The IRS may then withhold income tax overpayments that would otherwise be refunded to the individual. The overpayments are instead credited to the debt.

The IRS published regulations implementing the statute at 26 CFR 301.6402-6T. The Small Business Administration (SBA) relied on the IRS regulations in requesting offset against tax refunds payable from January 1, 1987, through December 31, 1987. In order to more fully explain procedures which are unique to SBA, these regulations are published.

The rule provides that before SBA will refer a debt to IRS, notice of that intention will be sent to the debtor. This notice will inform the debtor of the nature and amount of the debt and will advise that SBA will request IRS to offset any tax refund payable to the debtor unless full payment is made within 60 days. It will also advise the debtor of the right to review of the claim and provide the address at which to request a review. The debtor is presumed to receive the notice 3 days after mailing.

The rule requires a debtor requesting a review to do so in writing within 60 days of the notice from SBA. The request must state why the debt is not past due or is not legally enforceable and include any documents which the borrower wishes SBA to consider. A debtor requesting a review prior to the deadline has the full 60 days to submit additional evidence. However, the initial request for review must inform SBA of the intention to send additional documents.

Since this rule is procedural in nature and since the procedures themselves require that actual notice be sent to all persons affected thereby, it is not subject to the notice and public comments requirements of the Administrative Procedures Act, 5 U.S.C. 553(b)(1)(A). However, in compliance with SBA's policy of allowing comment when possible, public comment is requested. If the authority for IRS offsets is extended, any comments will be considered before proposing any extension of the effective date of this final rule. See Pub. L. 98-369, section 2653c, 98 Stat. 1156.

### Executive Order 12291

These regulations are not a major rule because they will not have an annual economic effect of \$100 million or more. They will not increase costs to any entity nor adversely affect competition or employment in the United States.

### Regulatory Flexibility Act Certification

SBA certifies that this rule will not have a significant economic impact on a substantial number of small entities. SBA will notify the Internal Revenue Service only of debts owed by individuals. Therefore, no small entities will be affected.

### Paperwork Reduction Act of 1980

This rule requires individuals to submit information if they wish to dispute SBA's claim. 13 CFR 140.6(e). This information requirement is part of an administrative action which begins when SBA sends a notice to a particular party as required by § 140.6(c). Therefore, this collection is exempt from the requirements of the Paperwork Reduction Act, 5 CFR 1320.3(c).

Accordingly 13 CFR Part 140 is amended as follows:

### PART 140—DEBT COLLECTION

1. The Authority Citation is revised to read as follows:

**Authority:** Sec. 5(b)(6) of the Small Business Act, 15 U.S.C. 634(b)(6), 31 U.S.C. 3720A.

2. Insert in the table of contents for Part 140 the new section title:

Sec.  
140.6 Income tax refund offset.

3. Add a new, § 140.6 Income Tax Refund Offset, as follows:

#### § 140.6 Income Tax Refund Offset.

##### (a) Definitions.

(1) Past Due. Any accelerated debt or any judgment debt is past due for the purpose of this section, and remains past due until paid in full. An unaccelerated debt is past due if, at the time of the notice required by paragraph (c), any part of the debt had been due, but not paid for at least 90 days. Such an unaccelerated debt remains past due until paid current.

(2) Legally Enforceable. A debt is legally enforceable if there is any forum, including State or Federal court or administrative agencies, in which SBA's claim would not be barred on the date of

offset. Non-judgment debts are enforceable for ten years. Judgment debts are enforceable beyond ten years.

(3) **Debt.** A debt eligible for offset of tax overpayment is the principal amount loaned but not repaid or otherwise due, plus interest accrued to the date of referral, penalties, and costs, including any fee charged by the Internal Revenue Service. If a note has not been accelerated, the principal amount eligible for offset is limited to the principal portion of installments due, but not paid, as of the day of referral.

(4) **Notice.** Notice means the information sent to the debtor pursuant to paragraph (c) of this section. The information may be included on or with a bill or monthly statement. The date of notice is three days after mailing by SBA.

(5) **Dispute.** A dispute is a written statement that all or part of an alleged debt is not past due or is not legally enforceable supported by documentation or other evidence. Offers of compromise, repayment plans, requests for deferrals and other requests or offers are not disputes.

(b) **Referral.** SBA may request the IRS to offset any tax refund payable to an individual who has a past due, legally enforceable debt of \$25.00 or more due to the Agency. SBA shall make the referral in the form and on the dates prescribed by the IRS.

(c) **Notice.** Before making a referral, SBA will mail a notice to the debtor's last known address stating that SBA intends to refer the debt to IRS for a tax refund deduction unless the debtor pays the past due amount or disputes the debt according to the procedures explained below within 60 days. The notice will include an address where disputes must be sent.

(d) **Other Preconditions.** Prior to referring a debt, SBA will:

(1) Disclose the loan status to a consumer reporting agency as provided by 31 U.S.C. 3711(f) and implemented in 13 CFR 140.3; and

(2) Satisfy any other conditions prescribed by the Secretary of the Treasury in 26 CFR 301.6402-6T or other regulations.

(e) **Disputes.** A debtor may request a review by SBA if the debtor believes that all or part of the debt is not past due or legally enforceable as follows:

(1) The debtor must send a written request for review to the address provided in the notice.

(2) The request must state the amount disputed and the reasons why the debtor believes that the debt is not past due or is not legally enforceable.

(3) The request must include any documents which the debtor wishes to

be considered or state that additional information will be submitted within the time permitted.

(4) The request, and any additional information submitted pursuant to paragraph (e)(3) of this section, must be received by SBA, at the address stated in the notice, within 60 days of the notice provided for in paragraph (c) of this section.

(f) **Reviews.** The SBA field office responsible for servicing a debt will review disputes. SBA shall consider any documentation and arguments submitted by the debtor and agency records. A decision that any disputed portion of the debt is eligible to be referred shall be reviewed and concurred in by a supervisory official. SBA shall send a written notice of the decision to the debtor.

(g) **Change In Amount Due.** SBA will notify IRS of any reduction in the amount due within 10 business days of receipt of payments or notice of other reductions. SBA will not report increases in the amount due after the original referral. However, any fee charged by IRS may be imposed and added to the balance at the time of offset.

(h) **Prior Reviews.** Any debt which has been reviewed pursuant to this section, or any other section of this part, or which has been reduced to a judgment, may not be disputed except on the grounds of payments made, or events occurring, subsequent to the previous review.

(i) **Simultaneous Referrals.** SBA may refer a debt to IRS for a tax refund offset and take additional action at the same time or in sequence. Such additional action may include, but is not limited to, disclosing the debt to a consumer reporting agency as permitted by 31 U.S.C. 3711(f) and 13 CFR 140.3. When SBA makes simultaneous or sequential referrals, only one review is required, provided that:

(1) SBA gives notice of each intended action at least 60 days before the first action;

(2) The review granted is the broadest permitted for any of the proposed actions; and

(3) All the referrals occur within 6 months of the notice.

Dated: November 6, 1986.

Charles L. Heatherly,

Acting Administrator.

[FR Doc. 86-26124 Filed 11-24-86; 8:45 am]

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## DEPARTMENT OF THE INTERIOR

### Office of Surface Mining Reclamation and Enforcement

#### 30 CFR Part 946

#### Approval of Amendments to the Virginia Permanent Regulatory and Abandoned Mine Land Reclamation Programs

**AGENCY:** Office of Surface Mining Reclamation and Enforcement (OSMRE), Interior.

**ACTION:** Final rule.

**SUMMARY:** OSMRE is announcing the approval, with certain exceptions, of proposed amendments submitted by the Commonwealth of Virginia as modifications to its permanent regulatory and abandoned mine land reclamation programs (hereinafter referred to as the Virginia programs) under the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The amendment consists of new regulations which, except for certain existing operations, would completely replace those now implementing Chapter 19, Title 45.1 of the Code of Virginia, known as the Virginia Coal Surface Mining Control and Reclamation Act of 1979, as amended.

**EFFECTIVE DATE:** November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:** Mr. William Thomas, Director, Big Stone Gap Field Office, Office of Surface Mining Reclamation and Enforcement, P.O. Box 626, Big Stone Gap, Virginia 24219. Telephone: (703) 523-4303.

#### SUPPLEMENTARY INFORMATION:

##### I. Background

The Secretary of the Interior approved the Virginia programs on December 15, 1981. Information pertinent to the general background and revisions to the proposed permanent program submission, as well as the Secretary's findings, the disposition of comments and a detailed explanation of the conditions of approval, can be found in the December 15, 1981 *Federal Register* (46 FR 61085-61115). Subsequent actions concerning the conditions of approval and proposed amendments are identified at 30 CFR 946.12, 946.13, 946.15, and 946.25.

##### II. Submission of Amendment

In accordance with the provisions of 30 CFR 732.17(d) through (f), on March 25, 1985, the Director notified Virginia of the changes necessary to ensure that the approved regulatory program was no less effective than SMCRA and its implementing regulations as revised

since December 15, 1981, when the Virginia program was originally approved. To comply with this letter and to meet other needs and State objectives, the Commonwealth elected to undertake a complete rewrite of the regulations governing its permanent regulatory and abandoned mine land reclamation programs.

By letter of November 8, 1985, Virginia submitted these regulations to OSMRE for review as a program amendment (Administrative Record No. VA 571). The proposed regulations, consisting of Parts 480-03-19.700 through 480-03-19.882, would replace parts V700 through V882 of the currently approved regulations, although the current performance standards of Subchapters VK and the current permit application content requirements of Subchapter VG would remain in effect in mines operating under existing permits until those permits are either renewed or significantly revised.

The Director announced receipt of this proposed amendment in the December 20, 1985 *Federal Register* (50 FR 51885-51886), and, in the same notice, opened the public comment period and provided opportunity for a public hearing on its substantive adequacy. No comments were received by January 21, 1986, the close of the comment period, and since no one requested an opportunity to testify, the public hearing scheduled for January 8, 1986 was cancelled.

By letter of April 22, 1986 (Administrative Record No. VA 574), OSMRE notified Virginia of certain areas (the definitions of "affected area", "adverse physical impact", "fragile lands", "historic lands" and "valid existing rights"; permit application requirements with respect to processing times, lands unsuitable determinations, standards for approval of existing structures, ground water monitoring frequency, sites eligible for listing on the National Register of Historic Places, and subsidence control plans; award of costs and attorney's fees; sampling techniques for evaluation of revegetation success; success standards for cropland; consultation with forestry and wildlife agencies on certain revegetation success standards; augmentative practices; the static safety factor for backfilled steep slopes; spillway requirements for sedimentation ponds; and certain aspects of the administrative and judicial review process) in which the proposed amendment appeared to be less effective than the Federal regulations or in conflict with the decision in *In re: Permanent Surface Mining Regulation Litigation, II* (Civil Action 79-1144, D.D.C. 1984 and 1985).

By letter dated May 27, 1986 (Administrative Record No. VA 575), Virginia responded to these concerns, which were further discussed at a May 28, 1986 meeting of OSMRE and Virginia personnel. The minutes of this meeting have been entered in the Virginia administrative record as Document No. VA 576.

By letter dated August 14, 1986 (Administrative Record No. VA 577), Virginia submitted additional proposed regulatory changes, policy statements and other clarifying materials designed to address all OSMRE concerns. OSMRE announced receipt of these materials in the September 9, 1986 *Federal Register* (51 FR 32106-32107) and, in the same notice, reopened the public comment period until September 24, 1986.

A summary of the comments received and the Director's responses to them can be found in the section of this notice entitled "Public Comment."

### III. Director's Findings

#### 1. General

After a thorough review pursuant to SMCRA and the Federal regulations at 30 CFR 732.15 and 732.17, the Director finds that the proposed amendments, with certain exceptions, as submitted on November 8, 1985, and as revised and clarified on August 14, 1986, are no less stringent than the requirements of SMCRA and no less effective than the corresponding Federal regulations.

In general, the revised regulations are identical to the corresponding Federal regulations, with minor changes to improve clarity and specificity and to replace Federal references and terms with State references and terms. Where deemed necessary or useful, Virginia has also incorporated specifications and design criteria formerly found in its technical handbook into the new regulations. The revised rules deviate from the Federal language to include this material, to reflect the decisions of the U.S. District Court for the District of Columbia in *In re: Permanent Surface Mining Regulation Litigation, II* (hereinafter referred to as *In re: Permanent II*), to conform to State requirements concerning administrative procedures and reviews, and to retain certain previously approved alternatives ("State windows") to the Federal regulations. The Director finds that none of these changes alters the original findings, made at the time of program approval as required by section 503 of SMCRA and 30 CFR 732.15(b), concerning the State's authority and capability to implement, administer and enforce a program to regulate coal exploration and surface coal mining and

reclamation operations (46 FR 61089-61090, December 15, 1981).

Only those provisions of particular interest are discussed below. Any provisions not specifically discussed below are found to be no less stringent than SMCRA and no less effective than the Federal rules, although the Director may require further changes in the future as a result of Federal regulatory revisions, court decisions and his ongoing oversight of the Virginia program. Provisions which are not discussed either contain language similar to the corresponding Federal rules or previously approved State alternatives, or involve provisions which add specificity or lack a Federal counterpart and which do not adversely affect other aspects of the program.

#### 2. Implementation of Revised Regulations

Section 480-03-19.700.3 provides that, for existing operations permitted pursuant to Chapter 19, Title 45.1 of the Code of Virginia as approved on December 15, 1981, all provisions of the new Chapter 19 regulations (except the performance standards of Subchapter VK and those portions of Subchapter VG concerning the content of permit applications) being considered in this rulemaking will become effective when approved by the Secretary of the Interior. The rule states that performance standards and permit application content requirements will not apply to existing operations until the permits for such operations are either renewed or significantly revised. In the interim, the performance standards and permit application content requirements of the December 15, 1981 rules will apply to such operations. The Director interprets the references to the December 15, 1981 rules as meaning those rules as subsequently amended prior to this rulemaking, not just those rules as in existence on that date.

Virginia has assured the Director that it will not allow an operator to selectively revise a permit solely to take advantage of any less stringent provision in the revised rules being approved today. If an operator wishes to so revise a permit, he will need to incorporate all applicable provisions concerning the subject in question. In addition, Virginia rule 480-03-19.774.11(b) provides that the Division may at any time order reasonable revision of a permit to ensure compliance with the Act and regulatory program, thus authorizing the Division to require corrective and/or preventive measures where the need for such action arises.

The Director, based on the understandings and interpretations set forth in this discussion, finds Virginia rule 480-03-19.700.3 to be consistent with the requirements of SMCRA and the Federal regulations.

### 3. Bonding

Virginia proposes to revise Subchapter VI of its bonding regulations to limit the use of incremental bonding to participants in the bond pool, which the Director approved earlier as an acceptable alternative bonding system under Section 509(c) of SMCRA (47 FR 41556-41558, September 21, 1982). On October 1, 1984, the U.S. District Court for the District of Columbia ruled that Federal regulatory provisions allowing the posting of bond for increments smaller than the entire area covered by the initial term of the permit were in conflict with section 509(a) of SMCRA (*In re: Permanent II*), and, on February 21, 1985, the Secretary suspended the remanded rules (50 FR 7274). However, the court's decision does not affect alternative bonding systems approved under Section 509(c) of SMCRA. Virginia rule 480-03-19.801.11(c) provides that commencement of participation in the bond pool constitutes an irrevocable commitment by the permittee to participate for the duration of surface mining operations on the entire permit area. Therefore, the Director finds that Virginia's revised bonding rules (Subchapter VI) are no less effective than Subchapter J of the Federal regulations.

### 4. Definition of "Affected Area"

In *In re: Permanent II* (July 15, 1985), the U.S. District Court for the District of Columbia remanded the Federal definition of "affected area" at 30 CFR 701.5 because it excluded all public roads with more than incidental public use, an exclusion which the court found to be inconsistent with the definition of "surface coal mining and reclamation operations" at section 701(28) of SMCRA. Although, unlike the Federal rule, the Virginia definition of "affected area" in §480-03-19.700.5 does not contain criteria defining a public road, it does specifically exclude public roads, a term which is then defined separately in a manner similar to the criteria established in the Federal rule.

Therefore, in accordance with the court's decision, the Director finds that the Virginia definition of "affected area" is less stringent than SMCRA, and he is not approving it to the extent that it excludes public roads without regard to the effect of mining use upon the road. However, since the court did not remand the Federal definition of "public

road" at 30 CFR 761.5, which contains the same criteria, the Director is not extending this finding to the similar State definition of "public road" in section 480-03-19.700.5.

### 5. Valid Existing Rights

The U.S. District Court for the District of Columbia remanded those portions of the definition of "valid existing rights" at 30 CFR 761.5 that substitute a broad constitutional takings test for the previously used "all permits" test (*In re: Permanent II*, March 22, 1985). The court ruled that the Secretary had failed to provide adequate notice and opportunity for comment under the Administrative Procedure Act. The proposed Virginia definition of "valid existing rights" in section 480-03-19.700.5 would replace the current "all permits" test with a constitutional takings test in a manner identical to that discussed above. Therefore, until OSMRE promulgates revised rules in accordance with the court's decision of otherwise determines the effect of the decision on State programs, the Director is deferring a final decision on the Virginia definition. In the interim, the current "all permits" test will remain the only approved means of determining the existence of valid existing rights in Virginia.

The court also remanded 30 CFR 761.11(h), which states that there will be no mining on certain Federal lands unless authorized by acts of Congress, on identical grounds, while indicating that the rule had serious substantive deficiencies as well. Proposed Virginia rule 480-03-19.761.11(h) is identical to the remanded Federal rule. Therefore, the Director finds the proposed rule to be less stringent than Section 522(e) of SMCRA, and he is not approving it.

### 6. Existing Structures

Virginia rule 480-03-19.773.16(c) lists the specific performance standards that various kinds of existing structures must meet to be considered in compliance with the performance standards of the State law and Subchapter VK of the regulations. The Federal regulations at 30 CFR 701.11(d), 773.15(c)(6) and 773.17(f) require, in effect, that existing structures meet performance standards no less effective than those of Subchapter K, the permanent program standards; however, the standards to be met are not specifically enumerated.

OSMRE initially expressed concern about the adequacy of certain provisions of the revised rules, and, on August 14, 1986, Virginia responded with further revisions and a letter of clarification. The Commonwealth explained that sections 480-03-19.773.16(c)(9)(ii) and 480-03-

19.773.16(c)(9)(ii), which require that excess spoil fills and coal processing waste disposal areas achieve necessary stability with an adequate margin of safety, mean that the facility as a whole must meet the minimum static safety factors specified in Subchapter VK of the regulations. The proposed rules [sections 480-03-19.773.16(c)(8)(vii) and (9)(viii)] also require that placement of additional spoil or waste on an existing disposal structure be in accordance with the applicable requirements of Subchapter VK. The Virginia letter explains that "applicable" was used in place of "all" since standards governing such activities as topsoil handling and spoil placement could not be applied to that portion of the existing structure already in place. All additional spoil or waste would be placed in accordance with all the performance standards of Subchapter VK relevant to that stage of construction. Based on these explanations, the Director finds that Virginia rule 480-03-19.773.16(c), as submitted on November 8, 1985, and as modified and clarified on August 14, 1986, is no less effective than the Federal regulations concerning existing structures.

### 7. Guidelines for Significant Permit Revisions

Both the Federal regulations at 30 CFR 774.13(b)(2) and the proposed Virginia rule at section 480-03-19.774.13(b)(2) require the regulatory authority to establish guidelines setting forth the scale or extent of revisions for which all permit application information requirements and procedures shall apply. By letter of August 14, 1986, Virginia submitted a listing of the circumstances under which a revision would be considered significant (and for which all application requirements and procedures would apply) and those under which it would be considered minor. The Director finds that the guidelines proposed by Virginia comply with and are no less effective than the Federal requirements.

### 8. Ground Water Monitoring

Virginia rules 480-03-19.780.21(i) and 480-03-19.784.14(h) specify that ground water monitoring plans shall require the monitoring of ground water and the submission of monitoring data "on a quarterly basis or as otherwise specified by the Division." The Federal rules at 30 CFR 780.21(1) and 784.14(h) require monitoring and data submission at least every three months for each location, unless a lesser frequency is later approved during the reclamation phase pursuant to a demonstration made in

accordance with 30 CFR 816.41 (c)(3) or 817.41 (c)(3).

By letter of August 14, 1986, Virginia clarified that the phrase "on a quarterly basis or as otherwise specified by the Division" means at least quarterly and that any other monitoring and reporting interval specified by the Division will be more frequent. Less frequent monitoring will be approved only after the conditions set forth by Virginia rules 480-03-19.816.41 (c)(6) of 480-03-19.817.41 (c)(6), the State counterparts to 30 CFR 816.41(c)(3) and 817.41(c)(3), have been met. Therefore, the Director finds that, with this clarification, the Virginia rules concerning ground water monitoring plans are no less effective than the Federal rules.

#### 9. Subsidence

Virginia rule 480-03-19.784.20(f)(2) requires that subsidence control plans address damage to structures or facilities only to the extent required under State law. Section 480-03-19.817.121(c)(2) requires that permittees correct material damage to facilities or structures, or compensate their owners for the full diminution in value, only to the extent required under State law. As originally promulgated, the corresponding Federal regulations at 30 CFR 784.20(f)(2) and 817.121(c)(2) contained identical provisions. However, on February 21, 1985 (50 FR 7278), the Secretary suspended the phrase "to the extent required under State law" in order to comply with the U.S. District Court's decision in *In re: Permanent II* (October 1, 1984), which remanded this portion of the rule for failure to provide adequate notice and opportunity for comment.

Therefore, the Director finds that Virginia rules 480-03-19.784.20(f)(2) and 480-03-29.817.121(c)(2) are less effective than the corresponding Federal rules, as revised by the suspension, to the extent that the State rules contain the phrase "to the extent required under State law," and he is not approving the inclusion of this phrase within the State rules.

#### 10. Award of Costs and Fees

Unlike the Federal regulations at 43 CFR 4.1294(b), Virginia rule 480-03-19.789.1(e) does not allow the award of appropriate costs and expenses (including attorney's fees) from the Commonwealth to any person who makes a substantial contribution to a full and fair determination of the issues in any administrative proceeding and who at least partially prevails on the merits of the issues. In an amendment approved June 6, 1983 (48 FR 25184-25186), Virginia revised section 45.1-249(e) of its statute to authorize the

Division to issue regulations permitting such awards, but the regulations themselves have never been promulgated.

Therefore, the Director finds Virginia rule 480-03-19.789.1(e) less effective than the corresponding Federal rule and he is requiring that the Commonwealth further amend its program to address this deficiency.

#### 11. Revegetation

(a) The Federal rules at 30 CFR 816.116(a)(1) and 817.116(a)(1) require that standards for success and statistically valid sampling techniques for measuring the parameters of ground cover, production and stocking be selected by the regulatory authority and be included in the approved regulatory program. The preamble to these rules (48 FR 40150, September 2, 1983) further explains that the selected sampling techniques and success standards are to be subject to review and public comment. On August 14, 1986, Virginia submitted its selected techniques for review as part of this program amendment.

(i) To measure ground cover, the Division prescribes use of the cross-hair sighting tube point-frequency method, as described on pages 30-33 of a publication of the Pennsylvania State University entitled "Measurement of Plant Cover to Evaluate Revegetation Success (Agronomy Series 87)," by J.V. Raelson and G.W. McKee. The Director finds that proper use of this technique as described in Attachment #1 of the August 14, 1986 letter will provide statistically valid results and that it is, therefore, no less effective than the Federal requirements. He notes, however, that the referenced publication discusses OSMRE standards for ground cover which have since been superseded and are no longer valid. Therefore, the portion concerning standards rather than techniques should be disregarded.

Virginia also proposed another ground cover sampling technique, a line transect method taken from USDA Agriculture Handbook No. 537 for Area IV, for use only on small mine sites. However, the excerpted description of this method in Attachment #2 of the August 14, 1986 letter fails to indicate how many transects must be taken, how this number will be determined, and how the transects will be located. Since this information is essential to ensuring the statistical validity of the results, the Director finds that the description of this method is less effective than the Federal requirements, and he is requiring that Virginia further amend its program to supply the deficient information. In addition, the first operation of the

sample calculation formula needs to be changed to indicate division rather than addition.

(ii) Virginia proposes to adopt the line transect method used by the Virginia Division of Forestry for measuring stocking rates. The Director finds that the procedure as described in Attachment #3 of the August 14, 1986 letter is not less effective than the Federal requirements. In doing so, the Director assumes that the starting point of the first transect will be determined in a random fashion.

(iii) Virginia also states that any U.S. Soil Conservation Service methodology will be acceptable for measuring the productivity of grazing land, pasture land and cropland. Since no procedures, actual methodology, or specific textual reference or excerpts are supplied, the Director is unable to evaluate the statistical validity of the result obtained through use of these unspecified methods. Therefore, he is requiring that Virginia further amend its program to more precisely define the allowable methodology for use in measuring productivity.

(b) The Federal rules at 30 CFR 816.116(b)(3)(i) and 817.116(b)(3)(i) require that the regulatory authority specify minimum stocking levels and planting arrangements on the basis of local and regional conditions after consultation with the State agencies responsible for the administration of forestry and wildlife programs. Virginia's August 14, 1986 letter documents that the State fish and wildlife agency and State and Federal forestry and conservation agencies were consulted in the preparation of stocking and plant arrangement standards for postmining land uses involving woody plants. The Director finds that Virginia has demonstrated that the required consultation has occurred; however, the correspondence submitted with the August 14, 1986 letter indicates that the publication detailing local and regional requirements for stocking and planting arrangements for land uses involving wildlife management, recreation, shelter belts and noncommercial forestland is still in preparation. In that Virginia rules 480-03-19.816(b)(3)(i) and (b)(3)(v)(A) require that the Division approve stocking rates, planting arrangements and species composition on the basis of local and regional conditions, the Director finds that they are no less effective than the Federal rules. However, he notes that implementation of these rules requires finalization and OSMRE approval of the document mentioned above.

(c) The Federal rules at 30 CFR 816.116(b)(2) and 817.116(b)(2) provide that crop production shall be at least equal to that of a reference area or such other success standards as approved by the regulatory authority. Virginia rules 480-03-19.816.116(b)(2) and 480-03-19.817.116(b)(2), as revised on August 14, 1986, provide that, for areas developed for use as cropland, crop production on the revegetated area shall be at least equal to that of a reference area or the yields for reference crops from unmined lands, as determined from the current yield records of representative local farms in the surrounding area or from average county yields recognized by the U.S. Department of Agriculture. Because yields vary significantly among major soil types, the Director assumes that yield data comparisons will either involve sites with similar soils or be adjusted accordingly. On this basis, the Director finds the Virginia rules to be no less effective than the Federal regulations.

(d) On July 15, 1985, the U.S. District Court for the District of Columbia (*In re: Permanent II*) remanded 30 CFR 816.116(b)(3)(ii), 817.116(b)(3)(ii), 816.116(c)(4), and 817.116(c)(4) because the Secretary failed to demonstrate that the replanting of trees and shrubs and the repair of rills and gullies were normal conservation practices not requiring the restarting of the responsibility period. Since Virginia rules 480-03-19.816.116(b)(3)(ii), 480-03-19.817.116(b)(3)(ii), 480-03-19.816.116(c)(3), and 480-03-19.817.116(c)(3) are similar to the remanded Federal rules, the Director is not approving them to the extent that they could be interpreted as allowing the repair of rills and gullies and the replanting of trees and shrubs without restarting the responsibility period.

The court also remanded 30 CFR 816.116(c)(2) and 817.116(c)(2), which allowed measurement of revegetation success over a period other than the final two years of the responsibility period, because the Secretary failed to demonstrate that such a measurement would be an accurate evaluation of revegetation success. Since the Virginia rules at 480-03-19.816.116(c)(2) and 480-03-19.817.116(c)(2) contain similar provisions, the Director is deferring action on these rules until revised Federal regulations are promulgated in accordance with the court's decision. In the interim, the current requirements of V816.116(b)(1) and V817.116(b)(1) for measurement during the last two consecutive years of the responsibility period will remain in effect.

## 12. Backfilling and Grading

In approving the Virginia program, the Secretary found that the Virginia regulations allowing steep slope areas to be backfilled in a manner which would result in a static safety factor of less than 1.3 were acceptable under certain conditions, provided the Commonwealth did not allow any such sites to remain at a static safety factor of less than 1.2 (46 FR 61092-61093, December 15, 1981). By letter of August 14, 1986, Virginia reaffirmed this commitment, stating that, in applying the provisions of §§ 480-03-19.816.107(e) and 480-03-19.817.107(e), the Division would not approve any final backfilled area having a static safety factor of less than 1.2. Therefore, the Director finds that the Virginia rules are no less effective than the Federal regulations at 30 CFR 816.102(a)(3) and 817.102(a)(3).

## 13. Sedimentation Pond Spillways

Virginia rules 480-03-19.816.46(c)(2)(ii) and 480-03-19.817.46(c)(2)(ii) provide that temporary ponds may use a single spillway of the pipe and riser design if the riser is no less than 15 inches in diameter, the barrel is no less than 12 inches in diameter and a properly designed anti-vortex device and trash rack are securely installed on top of the riser. The Federal rules at 30 CFR 816.46(c)(2)(ii) and 817.46(c)(2)(ii) state that such ponds may use a single spillway if the spillway (1) is an open channel of nonerodible construction capable of maintaining sustained flows and (2) is not earth or grass-lined. The U.S. Soil Conservation Service (SCS) criteria for ponds of this size, as contained in Publication No. 378, "Ponds", specify that a single closed-conduit spillway may be used in place of separate principal and emergency spillways only if the conduit has a cross-sectional area of three square feet or more, an inlet that will not clog and an elbow designed to facilitate the passage of trash. Therefore, OSMRE requested that Virginia supply further justification for its proposal.

In its letter of August 15, 1986, Virginia notes that it has 20 years of regulatory experience with ponds with single closed-conduit spillways, and that it has observed little difficulty with these structures attributable to spillway design. Virginia currently require a minimum riser diameter of 21 inches and a minimum barrel diameter of 15 inches, which the revised rules would reduce to 15 and 12 inches, respectively. The Division has found the current minima to be excessive for haul road sumps and other temporary ponds serving a minimal drainage area. Virginia further

notes that a West Virginia SCS publication, the "Erosion and Sediment Control Handbook for Urban Areas", waives the emergency spillway requirement for small ponds (those with an embankment height under 5 feet and a drainage area under 20 acres), and establishes a minimum riser diameter of 12 inches and a minimum barrel diameter of 8 inches for such structures.

In addition, Virginia emphasizes that the standards in question apply only to temporary ponds subject to frequent monitoring, and that the minimum sizes were selected for maintenance purposes and protection against clogging rather than to assure passage of a certain volume of runoff. Regardless of the minimum spillway size specifications, all ponds must be designed to meet effluent limitations and to safely discharge peak flows from the design storm. To minimize clogging potential, the proposed rule also requires anti-vortex devices and trash racks for all such ponds.

The Director finds Virginia's arguments persuasive, and he therefore finds that the Commonwealth's spillway design requirements are no less effective than the corresponding Federal rules.

## 14. Administrative and Judicial Review

(a) The Director finds that section 480-03-19.842.15 of the Virginia rules is inconsistent with the Federal regulations at 30 CFR 842.15(d) in that it does not provide that the DMLR Director's decisions on citizen requests for review of an inspector's decision not to inspect or take enforcement action with respect to any violation alleged by that citizen are appealable in accordance with section 9-6.14.12 of the Virginia Administrative Process Act. Similarly, the Director finds that section 480-03-19.843.12 of the Virginia rules is less effective than the Federal regulations at 30 CFR 843.12(i) in that the Commonwealth fails to specify that the DMLR Director's decision on whether to allow an extension of the abatement period for a violation beyond 90 days is also formally appealable. By letter of August 14, 1986, Virginia agreed to submit further amendments to correct these deficiencies, as the Director is requiring in this notice.

(b) Section 480-03-19.843.15 of the Virginia rules contains no counterpart to the Federal regulations at 30 CFR 843.15(b), which provide that a notice or order ceasing mining shall not expire after 30 days if the permittee or operator waives his or her right to an informal hearing or consents to holding the hearing more than 30 days after issuance of the notice or order.

Therefore, the Director finds the Virginia rules to be less effective than the Federal rules, and he is requiring that the Commonwealth further amend its program to include such a specification.

(c) The Director finds that Virginia rules 480-03-19.845.17(b) and 480-03-19.845.18(b)(1) are less effective than the Federal regulations at 30 CFR 845.17(b)(2) and 845.18(b)(1) in that they do not specify that the failure of the Division to serve any proposed assessment or to hold any requested assessment conference within the prescribed time limits shall not be grounds for dismissal of all or part of an assessment unless the person against whom the proposed penalty is assessed can prove actual prejudice as a result of the delay, and unless that person makes a timely objection to the delay. Therefore, he is requiring that Virginia further amend its program to include similar provisions.

#### IV. Public Comment

As discussed in the section of this notice entitled "Submission of Amendment", the Director solicited public comment and provided opportunity for a public hearing on the proposed amendment. No comments were received, and since no one requested an opportunity to testify at a public hearing, no hearing was held.

Pursuant to section 503(b) of SMCRA, 30 CFR 732.17(h)(10)(i), 30 CFR 884.14(a)(2) and 30 CFR 884.15, comments were also solicited from various Federal agencies with an actual or potential interest in the Virginia programs. The Environmental Protection Agency and the Mine Safety and Health Administration concurred in the amendments. A summary of other comments received and the Director's responses to them appears below:

1. The U.S. Fish and Wildlife Service supported the amendments, but noted that it had never received notification of receipt of permit applications, nor had any other type of coordination occurred. The Director has taken note of these concerns and will monitor compliance with all requirements of the Virginia programs as part of his ongoing oversight of those programs.

2. The Advisory Council on Historic Preservation (ACHP) supported the proposed amendment, but expressed concern that the program as a whole would not provide adequate protection for historic lands. Specifically, the ACHP stated that the revised rules lack (1) criteria for the denial of permits where the operation would adversely affect any publicly owned park or any place included in the National Register of Historic Places (NRHP) and (2)

provisions for the conditioning of permits to require that properties eligible for listing be protected or subjected to documentation or data recovery prior to destruction.

With respect to the ACHP's first concern, Virginia rule 480-03-19.773.15(c)(3)(ii) forbids the approval of permits subject to the prohibitions or limitations of section 480-03-19.761.11, which, in paragraph (c), prohibits any mining which would adversely affect any publicly owned park of any place included in the NRHP unless the mining is approved by the Division and the agency with jurisdiction over the park or place.

With respect to sites eligible for listing on the NRHP, the Director notes that Virginia rules 480-03-19.773.12 and 480-03-19.773.13(a)(3)(ii) require compliance with the National Historic Preservation Act (NHPA) and coordination of permit application review with the State Historic Preservation Officer. Section 480-03-19.773.15(a)(1) grants the Division the authority to grant, require modification of, or deny any permit application. In addition, all grant agreements providing funding for the Virginia programs contain a clause requiring the Commonwealth to assist the Secretary in his duty to comply with the NHPA. Hence, the Director believes Virginia's program provisions concerning historic sites are consistent with Federal provisions.

#### V. Director's Decision

Based on the above findings, the Director is approving the proposed amendments submitted by Virginia on November 8, 1985, as revised and clarified on August 14, 1986, with the exception of those provisions determined to be inconsistent with SMCRA, the Federal regulations or court decisions concerning those regulations. In addition, as indicated in Findings 10, 11(a)(1), 11(a)(iii) and 14, he is requiring that Virginia submit a number of further regulatory program amendments. Pursuant to 30 CFR 732.17 the Director has notified the Commonwealth that certain regulatory program amendments will be necessary. The Federal rules at 30 CFR Part 946 codifying decisions concerning the Virginia programs are being amended to implement this decision. The final rule is being made effective immediately to expedite the State program amendment process and to encourage States to conform their programs with the Federal standards without undue delay. Consistency of State and Federal standards is required by SMCRA.

The Director is disapproving the following provisions or potential

interpretations, as indicated, of the proposed amendment:

(1) As discussed in Finding 4, the definition of "affected area" at section 480-03-19.700.5 to the extent that it could be interpreted as excluding all public roads with more than incidental public use;

(2) As discussed in Finding 5, section 480-03-19.761.11(h) in its entirety; and

(3) As discussed in Finding 9, the phrase "to the extent required under State law" as contained in sections 480-03-19.784.20(f)(2) and 480-03-19.817.121(c)(2).

Pending promulgation of revised Federal regulations in accordance with the decisions of the U.S. District Court for the District of Columbia in *In re: Permanent II*, the Director also is not currently approving the following provisions or potential interpretations, as indicated, of the proposed amendment:

(1) As discussed in Finding 5, the definition of "valid existing rights" at section 480-03-19.700.5;

(2) As discussed in Finding 11(d), sections 480-03-19.816.116(b)(3)(ii), 480-03-19.817.116(b)(3)(ii), 480-03-19.816.116(c)(3) and 480-10-19.817.116(c)(3) to the extent that they could be interpreted as allowing the replanting of trees and shrubs and the repair of rills and gullies without requiring the restarting of the five-year responsibility period; and

(3) As discussed in Finding 11(d), sections 480-03-19.816.116(c)(2) and 480-03-19.817.116(c)(2) to the extent that they would allow the measurement of revegetation success during a period other than the final two years of the responsibility period.

#### Effect of Director's Decision

Section 503 of SMCRA establishes that a State may not exercise jurisdiction under SMCRA unless the State program is approved by the Secretary. Similarly, the Secretary's regulations at 30 CFR 732.17(a) require that any alteration of an approved State program must be submitted to OSMRE as a program amendment. Thus, any changes to the program are not enforceable by the State until approved by the Director. The Federal regulations at 30 CFR 732.17(g) prohibit any unilateral changes to approved State programs. In his oversight of the Virginia program, the Director will recognize only the statutes, regulations and other materials approved by him, together with any consistent implementing policies, directives and other materials, and will require the enforcement by Virginia of only such provisions.

**VI. Additional Determinations****1. Compliance with the National Environmental Policy Act**

The Secretary has determined that, pursuant to section 702(d) of SMCRA, 30 U.S.C. 1292(d), no environmental impact statement need be prepared on this rulemaking.

**2. Executive Order No. 12291 and the Regulatory Flexibility Act**

On August 28, 1981, the Office of Management and Budget (OMB) granted OSMRE an exemption from sections 3, 4, 7 and 8 of Executive Order 12291 for actions directly related to approval or conditional approval of State regulatory programs. Therefore, for this action OSMRE is exempt from the requirement to prepare a Regulatory Impact Analysis and this action does not require regulatory review by OMB.

The Department of the Interior has determined that this rule will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). This rule will not impose any new requirements; rather, it will ensure that existing requirements established by SMCRA and the Federal rules will be met by the State.

**3. Paperwork Reduction Act**

This rule does not contain information collection requirements which require approval by the Office of Management and Budget under 44 U.S.C. 3507.

**List of Subjects in 30 CFR Part 948**

Coal mining, Intergovernmental relations, Surface mining, Underground mining.

Dated: November 19, 1986.

**James W. Workman,**  
Deputy Director, Operations and Technical Services, Office of Surface Mining Reclamation and Enforcement.

**PART 946—VIRGINIA**

30 CFR Part 946 is amended as follows:

1. The authority citation for Part 946 continues to read as follows:

**Authority:** Pub. L. 95-87, Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 *et seq.*).

2. 30 CFR 946.10 is revised to read as follows:

**§ 946.10 State regulatory program approval.**

The Virginia regulatory program, as submitted on March 3, 1980, as amended and clarified on June 16, 1980, as resubmitted on August 13, 1981, and as clarified in a meeting with OSMRE on

September 21 and 22, 1981, and in a letter to the director of the Office of Surface Mining on October 15, 1981, is conditionally approved, effective December 15, 1981. Effective January 1, 1985, the Department of Mines, Minerals and Energy replaces the Department of Conservation and Economic Development as the regulatory authority in Virginia for all surface coal mining and reclamation operations and all exploration operations on non-Federal and non-Indian lands. Copies of the approved program as amended are available for review at the following locations:

(a) Virginia Division of Mined Land Reclamation, 622 Powell Avenue, Big Stone Gap, Virginia 24219.

(b) Office of Surface Mining Reclamation and Enforcement, P.O. Box 626, Room 214, Powell Valley Square Shopping Center, Route 23, Big Stone Gap, Virginia 24219.

(c) Office of Surface Mining Reclamation and Enforcement, Flannagan and Carroll Streets, Lebanon, Virginia 24286.

(d) Office of Surface Mining Reclamation and Enforcement, Room 5315, 1100 L Street NW., Washington, DC 20240.

3. A new paragraph (b) is added to § 946.12 to read as follows:

**§ 946.12 State program provisions and amendments disapproved.**

\* \* \* \* \*

(b) The following provisions of the coal surface mining reclamation regulations promulgated pursuant to Chapter 19, Title 45.1 of the Code of Virginia (1950), as submitted on November 8, 1985, as hereby disapproved:

(1) The definition of "affected area" in section 480-03-19.700.5 to the extent that it could be interpreted as excluding all public roads with more than incidental public use;

(2) Section 480-03-19.761.11(h), which prohibits mining on certain Federal lands, in its entirety; and

(3) The phrase "to the extent required under State law" as contained in sections 480-03-19.784.20(f)(2) and 480-03-19.817.121(c)(2).

4. A new paragraph (r) is added to § 946.15 to read as follows:

**§ 946.15 Approval of regulatory program amendments.**

\* \* \* \* \*

(r) The following amendments to the Virginia permanent regulatory program, as submitted on November 8, 1985, and as revised and clarified on August 14, 1986, are approved effective [November

25, 1986] with the exception of the provisions identified in § 946.12(b) and paragraphs (r)(1)(i) through (r)(1)(iii) of this section:

(1) Except as provided in section 480-03-19.700.3, replacement of all existing coal surface mining reclamation regulations promulgated pursuant to Chapter 19, Title 45.1 of the Code of Virginia (1950) with a new set of regulations, consisting of Parts 480-03-19.700 through 480-03-19.850, developed pursuant to the same statutory authority. This approval is conditional upon final promulgation of these regulations in a form substantively identical to that in which they were submitted on November 8, 1985, and revised on August 14, 1986. Pending promulgation of revised Federal regulations, the following provisions are not being approved at this time:

(i) The definition of "valid existing rights" in section 480-03-19.700.5,

(ii) Sections 480-03-19.816.116(b)(3)(ii), 480-03-19.817.116(c)(3)(ii), 480-03-19.816.116(c)(3) and 480-03-19.817.116(c)(3) to the extent that they could be interpreted as allowing the replanting of trees and shrubs and the repair of rills and gullies without requiring the restarting of the five-year responsibility period, and

(iii) Sections 480-03-19.816.116(c)(2) and 480-03-19.817.116(c)(2) to the extent that they would allow the measurement of revegetation success during a period other than the final two years of the responsibility period.

(2) Certain techniques for measuring revegetation success as submitted on August 14, 1986; and

(3) Guidelines for determining when an application for a permit revision must be handled in accordance with all permit application informational and procedural requirements, as submitted on August 14, 1986.

5. Section 946.16 is added to read as follows:

**§ 946.16 Required program amendments.**

Pursuant to 30 CFR 732.17, Virginia is required to submit the following proposed program amendments by the dates specified:

(a) By September 1, 1987, Virginia shall submit revisions to its coal surface mining reclamation regulations at section 480-03-19.789.1(e) to provide for the award of appropriate costs and expenses (including attorney's fees) from the Commonwealth to any person who makes a substantial contribution to a full and fair determination of the issues in any administrative proceeding;

and who at least partially prevails on the merits of the issues.

(b) By September 1, 1987, Virginia shall revise its ground cover measurement technique for small areas, as contained in Attachment #2 of the portion of the August 14, 1986 submission concerning revegetation issues, to specify how many transects must be taken, how this number will be determined, and how the transects will be located on the ground.

(c) By September 1, 1987, Virginia shall submit materials detailing the sampling techniques to be used to measure the productivity of grazing land, pasture land and cropland.

(d) By September 1, 1987, Virginia shall submit revisions to its coal surface mining reclamation regulations at section 480-03-19.842.15 or otherwise propose to amend its program to provide that the Director's decisions on citizen requests for review of an inspector's decision not to inspect or take enforcement action with respect to any violation alleged by that citizen are appealable in accordance with section 9-6.14.12 of the Virginia Administrative Process Act.

(e) By September 1, 1987, Virginia shall submit revisions to its coal surface mining reclamation regulations at § 480-03-19.843.12 or otherwise propose to amend its program to specify that the Director's decision on whether to allow an extension of the abatement period for a violation beyond 90 days is formally appealable in accordance with the Virginia Administrative Process Act.

(f) By September 1, 1987, Virginia shall submit revisions to its coal surface mining reclamation regulations at section 480-03-19.843.15 or otherwise propose to amend its program to provide that a notice or order ceasing mining shall not expire after 30 days if the permittee or operator waives his or her right to an informal hearing or consents to holding the hearing more than 30 days after issuance of the notice or order.

(g) By September 1, 1987, Virginia shall submit revisions to its coal surface mining reclamation regulations at sections 480-03-19.845.17(b) and 480-03-19.845.18(b)(1) or otherwise propose to amend its program to specify that the failure of the Division to serve any proposed assessment or to hold any requested assessment conference within the prescribed time limits shall not be grounds for dismissal of all or part of an assessment unless the person against whom the proposed penalty is assessed can prove actual prejudice as a result of the delay and unless that person makes a timely objection to the delay.

6. 30 CFR 946.20 is revised to read as follows:

**§ 946.20 Abandoned mine land reclamation plan approval.**

Virginia Abandoned Mine Land Reclamation Plan as submitted on September 22, 1980, is approved effective December 15, 1981. Copies of the approved plan are available for review at the following locations:

(a) Virginia Division of Mined Land Reclamation, 622 Powell Avenue, Big Stone Gap, Virginia 24219.

(b) Office of Surface Mining Reclamation and Enforcement, P.O. Box 626, Room 214, Powell Valley Square Shopping Center, Route 23, Big Stone Gap, Virginia 24219.

(c) Office of Surface Mining Reclamation and Enforcement, Room 5315, 1100 L Street NW., Washington, DC 20240.

7. Section 946.25 is added to read as follows:

**§ 946.25 Approval of abandoned mine land reclamation plan amendments.**

(a) The following amendment as submitted on November 8, 1985 is approved effective November 25, 1986: Replacement of Subchapter VR of the Virginia coal surface mining reclamation regulations promulgated under Chapter 19, Title 45.1 of the Code of Virginia (1950) with a new Subchapter VR, consisting of Parts 480-03-19.874 through 480-03-19.882, promulgated under the same statutory authority. This approval is conditional upon final promulgation of these regulations in a form substantively identical to that in which they were submitted on November 8, 1985.

(b) [Reserved]

[FR Doc. 86-26524 Filed 11-24-86; 8:45 am]

BILLING CODE 4310-05-M

## DEPARTMENT OF DEFENSE

### Office of the Secretary

#### 32 CFR Part 99

#### Procedures for States and Localities to Request Indemnification

**AGENCY:** Office of the Secretary, DOD.

**ACTION:** Final rule.

**SUMMARY:** The Department of Defense (DoD), Office of Personnel Management (OPM), and Central Intelligence Agency (CIA) conduct national security investigations of individuals for the purpose of determining eligibility for access to classified information or for assignment to or retention in sensitive

national security duties. An essential element of these national security investigations is the review of State and local criminal history record information. While many States and localities have voluntarily provided criminal history record information to the DoD, OPM, and CIA, a significant number, because of their laws or policies, have not done so. Congress, therefore, enacted 5 U.S.C. 9101 which establishes a mandatory mechanism for access to such records for the purpose described above. The unique combination of national security concerns, issues of states' rights, and a need to respect the privacy rights of Americans, led Congress to include an indemnification provision in the law. These regulations describe who may request an indemnification agreement and prescribe the mandatory provisions of the Uniform Federal Agency Indemnification Agreement, the procedures for requesting the agreement, and the procedures for giving notice of claims within the scope of the agreement.

**EFFECTIVE DATE:** December 26, 1986.

**FOR FURTHER INFORMATION CONTACT:** Edward J. Shapiro, Assistant General Counsel (Legal Counsel), Department of Defense, Washington, DC 20301-1600; Telephone (202) 697-2714.

**SUPPLEMENTARY INFORMATION:** These procedures were prepared by a working group established by the U.S. Department of Justice and represent the interpretation of DoD, OPM, and CIA of Title VII of Pub. L. 99-169.

#### List of Subjects in 32 CFR Part 99

National security investigations, Indemnification.

Accordingly, Title 32, Chapter I, Subchapter B is amended to add Part 99 to read:

#### PART 99—PROCEDURES FOR STATES AND LOCALITIES TO REQUEST INDEMNIFICATION

Sec.

- 99.1 Scope and purpose.
- 99.3 General definitions.
- 99.5 Eligibility for indemnification.
- 99.7 Procedures for requesting an indemnification agreement.
- 99.9 Terms of indemnification.

#### Appendix—Addresses of Relevant U.S. Government Agencies

**Authority:** Access to Criminal History Records for National Security Purposes, of The Intelligence Authorization Act for Fiscal Year 1986, Pub. L. No. 99-169, Secs. 801-803, 99 Stat. 1002, 1008-1011 (1985) (codified in part at 5 U.S.C. § 9101).

**§ 99.1 Scope and purpose.**

(a) The Department of Defense (DoD), Office of Personnel Management (OPM), or Central Intelligence Agency (CIA) has the right to criminal history information of States and local criminal justice agencies in order to determine whether a person may:

- (1) Be eligible for access to classified information;
- (2) Be assigned to sensitive national security duties; or
- (3) Continue to be assigned to national security duties.

(b) This part sets out the conditions under which the DoD, OPM, or CIA may sign an agreement to indemnify and hold harmless a State or locality against claims for damages, costs, and other monetary loss caused by disclosure or use of criminal history record information by one of these agencies.

(c) The procedures set forth in this part do not apply to situations where a Federal agency seeks access to the criminal history records of another Federal agency.

(d) By law these provisions implementing 5 U.S.C. 9101 (b)(3) shall expire December 4, 1988, unless the duration of said section is extended or limited by Congress.

**§ 99.3 General definitions.**

For the purposes of §§ 99.1 through 99.9 of this part:

**Criminal history record information:** information collected by criminal justice agencies on individuals consisting of identifiable descriptions and notations of arrests, indictments, information, or other formal criminal charges and any disposition arising therefrom, sentencing, correction supervision, and release. The term does not include identification information such as fingerprint records to the extent that such information does not indicate involvement of the individual in the criminal justice system. The term does not include those records of a State or locality sealed pursuant to law from access by State and local criminal justice agencies of that State or locality.

**Criminal justice agency:** Federal, State, and local agencies including (a) courts, or (b) a government agency or any subunit thereof which performs the administration of criminal justice pursuant to a statute or executive order, and which allocates a substantial part of its annual budget to the administration of criminal justice.

**Department of Defense:** the Defense Investigative Service, National Security Agency, Naval Investigative Service, Air Force Office of Special Investigations, and Army Intelligence and Security Command.

**Federal agency:** the Department of Defense, the Office of Personnel Management, or the Central Intelligence Agency, or any other Federal agency subsequently authorized by Congress to obtain access to criminal history records information.

**Locality:** any local government authority or agency or component thereof within a State having jurisdiction over matters at a county, municipal or other local government level.

**State:** any of the several States, the District of Columbia, the Commonwealth of Puerto Rico, the Northern Mariana Islands, Guam, the Virgin Islands, American Samoa, the Trust Territory of Pacific Islands, and any other territory or possession of the United States.

**§ 99.5 Eligibility for indemnification.**

As provided for under 5 U.S.C. 9101(b)(3), a State or locality may request an indemnification agreement.

(a) To be eligible for an indemnification agreement a State or locality must have had a law in effect on December 4, 1985 that prohibited or had the effect of prohibiting the disclosure of criminal history record information to the DoD, OPM, or CIA.

(b) A State or locality is also eligible for an indemnification agreement if it meets the conditions of paragraph (a) of this section, but nevertheless provided criminal history record information to the DoD, OPM, or CIA on or before December 4, 1985.

**§ 99.7 Procedures for requesting an indemnification agreement.**

When requesting an indemnification agreement, the State or locality must notify each Federal agency as appropriate, at the address listed in the appendix to this part, of its eligibility of an indemnification agreement. It must also:

(a) Certify that on December 4, 1985, the State or locality had in effect a law which prohibited or had the effect of prohibiting the disclosure of criminal history record information to the DoD, OPM, or CIA; and

(b) Append to the request for an indemnification agreement a copy of such law.

**§ 99.9 Terms of indemnification.**

The terms of the Uniform Federal Agency Indemnification Agreement (UFAIA), must conform to the following provisions:

(a) **Eligibility:** The State or locality must certify that its law prohibits or has the effect of prohibiting the disclosure of criminal history record information to

the DoD, OPM, or CIA for the purposes described in section 9101(a) and that such law was in effect on December 4, 1985.

**(b) Liability:**

(1) The Federal agency agrees to indemnify and hold harmless the State or locality from any claim for damages, costs and other monetary loss arising from the disclosure or negligent use by the DoD, OPM, or CIA of criminal history record information obtained from that State or locality pursuant to 5 U.S.C. 9101(b). The indemnification will include the officers, employees, and agents of the State or locality.

(2) The indemnification agreement will not extend to any act or omission prior to the transmittal of the criminal history record information to the Federal agency.

(3) The indemnification agreement will not extend to any negligent acts on the part of the State or locality in compiling, transcribing or failing to delete or purge any of the information transmitted.

**(c) Consent and access requirements:**

(1) The Federal agency when requesting criminal history record information from the State or locality for the release of such information will attest that it has obtained the written consent of the individual under investigation after advising him or her of the purposes for which that information is intended to be used.

(2) The Federal agency will attest that it has advised that individual of the right to access that information.

(d) **Purpose requirements:** The Federal agency will use the criminal history record information only for the purposes stated in § 910.101(a).

**(e) Notice, litigation and settlement procedures:**

(1) The state or locality must give notice of any claim against it on or before the 10th day after the day on which claim against it is received, or it has notice of such a claim.

(2) The notice must be given to the Attorney General and to the United States Attorney of the district embracing the place wherein the claim is made.

(3) The Attorney General shall make all determinations regarding the settlement or defense of such claims.

**Appendix—Addresses of Relevant U.S. Government Agencies**

Department of Defense, Office of the General Counsel, Room 3E988, Washington, DC 20301-1600

Office of Personnel Management, Office of Federal Investigations, P.O. Box 886, Washington, DC 20044.

Central Intelligence Agency, Attention: Office of General Counsel, Washington, DC 20505

Linda M. Lawson,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

November 18, 1986.

[FR Doc. 86-26325 Filed 11-24-86; 8:45 am]

BILLING CODE 3810-01-M

## 32 CFR Part 150

### Courts of Military Review; Rules of Practice and Procedure

AGENCY: DOD.

ACTION: Final rule.

**SUMMARY:** This part publishes the rules of practice and procedure for courts of military review, pursuant to the Uniform Code of Military Justice, Article 86(f) (10 U.S.C. 866). When the title "The Judge Advocate General" is used in a rule, it includes the General Counsel of the Department of Transportation when the Coast Guard is not operating as a service in the Navy. This part applies to The Judge Advocates General of the Department of the Air Force, the Army, and the Navy, and the General Counsel of the Department of Transportation.

**EFFECTIVE DATE:** March 1, 1985.

**FOR FURTHER INFORMATION CONTACT:** Captain Ronnie D. James, HQ USAF/JAJM, Bolling Air Force Base, Washington, DC 20332-6128, telephone (202) 767-1539.

**SUPPLEMENTARY INFORMATION:** This revision, in conformity with the Military Justice Act of 1983 and Manual for Courts-Martial 1984, changes past practice and procedures in several significant areas, and alters other procedures and terminology to conform to federal practice; § 150.21 establishes procedures for government appeals; § 150.14 provides for waiver or withdrawal of appellate review; §§ 150.10, 11, and 12 consolidate and rearrange former §§ 150.10, 150.11, 150.12 and 150.15; § 150.13 permits notice to be filed with the court instead of The Judge Advocate General; § 150.19 extends time for reconsideration of a decision from 10 to 20 days, but permits time to begin running upon service on counsel instead of the accused; § 150.20 details requirements for extraordinary writs; § 150.15 conforms terminology concerning briefs to federal practice; § 150.17 styles en banc requests as suggestions instead of motions.

#### List of Subjects in 32 CFR Part 150

Administrative practice and procedure; Courts; Military law.

Accordingly, 32 CFR Part 150 is revised to read as follows:

### SUBCHAPTER C—REGULATIONS PERTAINING TO MILITARY JUSTICE

#### PART 150—COURTS OF MILITARY REVIEW RULES OF PRACTICE AND PROCEDURE

Sec.

- 150.1 Name and seal.
- 150.2 Jurisdiction.
- 150.3 Scope of review.
- 150.4 Quorum.
- 150.5 Place for filing papers.
- 150.6 Signing of papers.
- 150.7 Computation of time.
- 150.8 Qualification of counsel.
- 150.9 Conduct of counsel.
- 150.10 Request for appellate defense counsel.
- 150.11 Assignment of counsel.
- 150.12 Retention of civilian counsel.
- 150.13 Notice of appearance of counsel.
- 150.14 Waiver or withdrawal of appellate review.
- 150.15 Assignments of error and briefs.
- 150.16 Oral arguments.
- 150.17 En banc proceedings.
- 150.18 Orders and decisions of the court.
- 150.19 Reconsideration.
- 150.20 Petitions for extraordinary relief, answer, and reply.
- 150.21 Appeals by the United States.
- 150.22 Petitions for new trial.
- 150.23 Motions.
- 150.24 Continuances and interlocutory matters.
- 150.25 Suspension of rules.
- 150.26 Internal rules.
- 150.27 Recording, photographing, broadcasting, or telecasting of hearings.
- 150.28 Format for direction for review.
- 150.29 Format for assignment of errors and brief on behalf of accused.

Authority: Sec. 866, 70A Stat 69; 10 U.S.C. 866.

**Editorial Note:** This regulation appears in the following DoD Joint Publications: AFR III-4; AR 27-13; NAVSO P-2319; CGM 5800.5B, 1 March 1985.

#### § 150.1 Name and seal.

(a) The titles of the Courts of Military Review of the respective services are:

- (1) United States Army Court of Military Review.
- (2) United States Navy-Marine Court of Military Review.
- (3) United States Air Force Court of Military Review.
- (4) United States Coast Guard Court of Military Review.

(b) Each Court is authorized a seal in the discretion of the Judge Advocate General concerned. The design of such seal shall include the title of the Court.

#### § 150.2 Jurisdiction

(a) The jurisdiction of the Court is as follows:

- (1) Review Under Article 66. All cases of trial by court-martial in which the sentence as approved extends to:
  - (i) Death; or

(ii) Dismissal of a commissioned officer, cadet or midshipman, dishonorable or bad conduct discharge, or confinement for one year or longer; and the accused has not waived or withdrawn appellate review.

(2) Review upon Direction of the Judge Advocate General Under Article 69. All cases of trial by general court-martial in which there has been a finding of guilty and a sentence

(i) For which Article 66 does not otherwise provide appellate review, and

(ii) Which the Judge Advocate General forwards to the Court for review, and

(iii) In which the accused has not waived or withdrawn appellate review.

(3) Review Under Article 62. All cases of trial by court-martial in which a punitive discharge may be adjudged and a military judge presides, and in which the Government appeals an order or ruling of the military judge that terminates the proceedings with respect to a charge or specification or excludes evidence that is substantial proof of a fact material to the proceedings.

(4) Review Under Article 73. All petitions for a new trial in cases of trial by court-martial which are referred to the Court by the Judge Advocate General.

(b) Extraordinary Writs. The Court may, in its discretion, entertain petitions for extraordinary relief including, but not limited to, writs of mandamus, writs or prohibition, writs of habeas corpus, and writs or error coram nobis.

(c) Effect of Sections on Jurisdiction. Nothing in these sections shall be construed to extend or limit the jurisdiction of the Court of Military Review as established by law.

#### § 150.3 Scope of review.

In cases referred to it for review pursuant to Article 66, the Court may act only with respect to the findings and sentence as approved by the convening authority. In determining an appeal under Article 62, the Court may act only with respect to matters of law. The Court may, in addition, review such other matters and take such other action as it determines to be proper under substantive law.

#### § 150.4 Quorum.

(a) *In panel.* When sitting in panel, a majority of the judges assigned to that panel constitutes a quorum for the purpose of hearing or determining any matter referred to the panel. The determination of any matter referred to the panel shall be according to the opinion of a majority of the judges participating in the decision. However,

any judge present for duty may issue all necessary orders concerning any proceedings pending on panel and any judge present for duty, or a Clerk of Court or Commissioner or whom the Court has delegated authority, may act on uncontested motions, provided such action does not finally dispose of a petition, appeal, or case before the Court.

(b) *En banc*. When sitting as a whole, a majority of the judges of the Court constitutes a quorum for a purpose of hearing and determining any matter before the Court. The determination of any matter before the Court shall be according to the opinion of a majority of the judges participating in the decision. In the absence of a quorum, any judge present for duty may issue all necessary orders concerning any proceedings pending in the Court preparatory to hearing or decision thereof.

#### § 150.5 Place for filing papers.

When the filing of a notice of appearance, brief, or other paper in the office of a Judge Advocate General is required by these rules, such papers shall be filed in the office of the Judge Advocate General of the appropriate armed force. If transmitted by mail or other means, they are not filed until received in such office.

#### § 150.6 Signing of papers.

All formal papers shall be signed and shall show, typewritten or printed, the signer's name, address, military grade (if any), and the capacity in which the paper is signed. Such signature constitutes a certification that the statements made therein are true and correct to the best of the knowledge, information, and belief of the person signing the paper and that the paper is filed in good faith and not for purposes of unnecessary delay.

#### § 150.7 Computation of time.

In computing any period of time prescribed or allowed by these rules, by order of the Court, or by any applicable statute, the day of the act, event or default after which the designated period of time begins to run is not to be included. The last day of the period so computed is to be included, unless it is a Saturday, Sunday, or legal holiday, in which event the period runs until the end of the next day which is neither a Saturday, Sunday, nor a holiday. When the period of time prescribed or allowed is less than 7 days, intermediate Saturdays, Sundays, and holidays shall be excluded in the computation.

#### § 150.8 Qualification of counsel

(a) *All counsel*. Counsel in any case before the Court shall be a member in good standing of the bar of a Federal Court, the highest court of a State or another recognized bar.

(b) *Military counsel*. Assigned appellate defense and appellate government counsel shall, in addition, be qualified in accordance with Articles 27(B)(1) and 70(a), Uniform Code of Military Justice.

(c) *Admission*. Each Court may license counsel to appear before it. Otherwise, upon entering an appearance, counsel shall be deemed admitted *pro hac vice*, subject to filing a certificate setting forth required qualifications if directed by the Court.

(d) *Suspension*. No counsel may appear in any proceeding before the Court while suspended from practice by the Judge Advocate General of the service concerned.

#### § 150.9 Conduct of counsel.

The conduct of counsel appearing before the Court shall be in accordance with rules of conduct prescribed pursuant to Rule for Courts-Martial 109 by the Judge Advocate General of the service concerned. In addition, the Court may exercise its inherent power to regulate counsel appearing before it, including the power to remove on an ad hoc basis counsel misbehaving before or in relation to their appearance before the Court. Conduct deemed by the Court to warrant consideration of suspension or other professional discipline shall be reported by the Court to the Judge Advocate General concerned.

#### § 150.10 Request for appellate defense counsel.

An accused may be represented before the court by appellate counsel detailed pursuant to Article 70(a) or by civilian counsel provided by the accused, or both. An accused who does not waive appellate review pursuant to Rule for Courts-Martial 1110 shall, within 10 days after service of a copy of the convening authority's action under Rule for Courts-Martial 1107(h), forward to the convening authority or the Judge Advocate General.

(a) A request for representation by military appellate defense counsel, or

(b) Notice that civilian counsel has been retained or that action has been taken to retain civilian counsel (must include name and address of civilian counsel) or,

(c) Both a request for representation by military appellate defense counsel under Rule 10(a) and notice regarding civilian counsel under Rule 10(b), or

(d) A waiver of representation by counsel.

#### § 150.11 Assignment of counsel.

(a) When a record of trial is referred to the Court

(1) if the accused has requested representation by appellate defense counsel, pursuant to Article 70(c)(1), counsel detailed pursuant to article 70(a) will be assigned to represent the accused;

(2) if the accused gives notice that he or she has retained or has taken action to retain civilian counsel, appellate defense counsel shall be assigned to represent the interests of the accused pending appearance of civilian counsel. Assigned defense counsel will continue to assist after appearance by civilian counsel unless excused by the accused;

(3) if the accused has neither requested appellate counsel nor given notice of action to retain civilian counsel, but has not waived representation by counsel, appellate defense counsel will be assigned to represent the accused, subject to excusal by the accused or by direction of the Court.

(b) In any case.

(1) the Court may request counsel when counsel have not been assigned;

(2) pursuant to Article 70(c)(2), appellate defense counsel will represent the accused when the United States is represented by counsel before the Court.

#### § 150.12 Retention of civilian counsel.

When civilian counsel represents an accused before the Court, the Court will notify counsel when the record of trial is received. If both civilian and assigned appellate defense counsel represent the accused, the Court will regard civilian counsel as primary counsel unless notified otherwise. Ordinarily, civilian counsel will use the accused's copy of the record. Civilian counsel may reproduce, at no expense to the Government, appellate defense counsel's copy of the record.

#### § 150.13 Notice of appearance of counsel.

Military and civilian appellate counsel shall file a written notice of appearance with the Court. The filing of any pleading relative to a case which contains the signature of counsel constitutes notice of appearance of such counsel.

#### § 150.14 Waiver or withdrawal of appellate review.

Withdrawals from appellate review, and waivers of appellate review filed after expiration of the period prescribed by Rule for Courts-Martial 1110(f)(1), will be referred to the Court for

consideration. At its discretion, the Court may require the filing of a motion for withdrawal, issue a show cause order, or grant the withdrawal without further action, as may be appropriate. The Court will return the record of trial, in a case withdrawn from appellate review, to the Judge Advocate General for action pursuant to Rule for Courts-Martial 1112.

#### § 150.15 Assignment of error and briefs.

(a) *General provisions.* Appellate counsel for the accused may file an assignment of error if any are to be alleged, setting forth separately each error asserted. The assignment of errors should be included in a brief for the accused (§150.29). An original of all assignments of error and briefs, and as many additional copies as shall be prescribed by each service, shall be submitted. Briefs and assignments of errors shall be typewritten, double-spaced on white paper, and securely fastened at the top. All references to matters contained in the record shall show record page numbers and any exhibit designations. A brief on behalf of the government shall be of like character as that prescribed for the accused.

(b) *Number of briefs.* Appellate counsel shall be limited to the filing of one brief for each side unless the Court otherwise permits or directs.

(c) *Time for filing.* Any brief for an accused shall be filed within 30 days after appellate counsel has been notified of the receipt of the record in the Office of the Judge Advocate General. If the Judge Advocate General has directed appellate government counsel to represent the United States, such counsel shall file an answer on behalf of the government within 30 days after any brief and assignment of errors has been filed on behalf of an accused. If no brief is filed on behalf of an accused, a brief on behalf of the government may be filed within 30 days after expiration of the time allowed for the filing of a brief on behalf of the accused.

#### § 150.16 Oral arguments.

Oral arguments may be heard in the discretion of the Court upon motion by either party or when otherwise ordered by the Court. The motion of a party for oral argument shall be made when that party's pleading is filed or within 5 days after the filing of any response thereto permitted under these rules.

#### § 150.17 En banc proceedings.

(a) A majority of the judges present for duty may order that any appeal or other proceeding be considered or reconsidered, except as indicated in

paragraph (c), by the Court sitting as a whole. Such consideration or reconsideration ordinarily will not be ordered except:

(1) When consideration by the full Court is necessary to secure or maintain uniformity of decision, or

(2) When the proceedings involve a question of exceptional importance, or

(3) When a sentence being reviewed pursuant to Article 66 extends to death.

(b) A party may suggest the appropriateness of consideration or reconsideration by the Court as a whole. If a party desires to suggest in cases being reviewed pursuant to Article 66, that a matter be considered initially by the Court as a whole, the suggestion must be filed with the Court within 5 days after the government files its answer to the assignment of errors, or the accused files a reply if permitted to do so under § 150.15(b). In other proceedings the suggestion must be filed with the party's initial petition or other initial pleading, or within 5 days after the response thereto is filed. A suggestion for reconsideration by the Court as a whole must be made within the time prescribed by § 150.19 for filing a motion for reconsideration. No response to the suggestion may be filed unless the Court shall so order.

(c) The suggestion of a party for consideration or reconsideration by the Court as a whole shall be transmitted to each judge of the Court who is present for duty, but a vote need not be taken to determine whether the cause shall be considered or reconsidered by the Court as a whole unless a judge requests a vote on such a suggestion made by a party. En banc reconsideration of an en banc decision will not be held unless one member of the original majority concurs in a vote for reconsideration.

#### § 150.18 Orders and decisions of the court.

The Court shall give notice of its orders and decisions pursuant to Rule for Courts-Martial 1203. The Court shall immediately serve such orders or decisions, when rendered, on appellate defense counsel, government counsel and The Judge Advocate General, or designee, as appropriate.

#### § 150.19 Reconsideration.

(a) The Court may, in its discretion and on its own motion, enter an order to reconsider its decision in any case not later than 30 days after service of such decision on the accused's appellate defense counsel or on the accused, if the accused is not represented by appellate counsel, provided a petition for grant of review or certificate for review has not been filed with the United States Court

of Military Appeals, or a record of trial for review under Article 67(b) has not been received by that Court. Copies of such order will be served on appellate defense counsel and appellate government counsel. No briefs or arguments shall be received unless the order so directs.

(b) Provided a petition for grant of review or certificate for review has not been filed with the United States Court of Military Appeals, or a record of trial for review under Article 67(b) has not been received by the United States Court of Military Appeals, the Court may, in its discretion, reconsider its decision in any case upon motion filed either:

(1) By appellate defense counsel within 20 days after receipt by counsel, or by the accused if the accused is not represented by counsel, of a decision or order, or

(2) By appellate government counsel within 20 days after the decision or order is received by counsel.

(c) A motion for reconsideration shall briefly and directly state the grounds for reconsideration, including a statement of facts showing jurisdiction in the Court. A reply to the motion for reconsideration will be received by the Court only if filed within 5 days of receipt of a copy of the motion. Oral arguments shall not be heard on a motion for reconsideration unless ordered by the Court. The original of the motion filed with the Court shall indicate the date of receipt of a copy of the same by opposing counsel.

(d) The time limitations prescribed by this rule shall not be extended under the authority of § 150.24 or § 150.25 beyond the expiration of the time for filing a petition for review by the United States Court of Military Appeals, except that the time for filing briefs by either party may be extended for good cause.

#### § 150.20 Petitions for extraordinary relief, answer, and reply.

(a) *Petition for extraordinary relief.* A petition for extraordinary relief in the number of copies required by the Court shall be accompanied by proof of service on each party respondent and will contain:

(1) A previous history of the case including whether prior actions have been filed or are pending for the same relief in this or any other court and the disposition or status of such actions;

(2) A concise and objective statement of all facts relevant to the issue presented and of any pertinent opinion, order or ruling;

(3) A copy of any pertinent parts of the record and all exhibits related to the

petition if reasonably available and transmittable at or near the time the petition is filed;

- (4) A statement of the issue;
- (5) The specific relief sought;
- (6) Reasons for granting the writ;
- (7) The jurisdictional basis for relief sought and the reasons why the relief sought cannot be obtained during the ordinary course of appellate review;
- (8) If desired, a request for appointment of appellate counsel.

(b) *Format.* The title of the petition shall include the name, military grade and service number of each named party and, where appropriate, the official military or civilian title of any named party acting in an official capacity as an officer or agent of the United States. When an accused has not been named as a party, the accused shall be identified by name, military grade and service number by the petitioner and shall be designated as the real party in interest.

(c) *Electronic message petitions.* The Court will docket petitions for extraordinary relief submitted by means of an electronic message. The message will conclude with the full name and address of petitioner's counsel, if any, and will state when the written petition and brief, when required, were placed in the mail addressed to the Court and to all named respondents.

(d) *Notice to the Judge Advocate General.* Immediately upon receipt of any petition, the Clerk shall forward a copy of the petition to the appropriate Judge Advocate General or designee.

(e) *Briefs.* Each petition for extraordinary relief must be accompanied by a brief in support of the petition unless it is filed *in propria persona*. The Court may issue a show cause order in which event the respondent shall file an answer within 10 days of the receipt of the show cause order. The petitioner may file a reply to the answer within 5 days of receipt of the answer.

(f) *Initial actions by the Court.* The Court may dismiss or deny the petition, order the respondent to show cause and file an answer within the time specified, or take whatever other action it deems appropriate.

(g) *Oral argument and final action.* The Court may set the matter for oral argument. However, on the basis of the pleadings alone, the Court may grant or deny the relief sought or make such other order in the case as the circumstances may require. This includes referring the matter to a special master, who need not be a military

judge, to further investigate; to take evidence; and to make such recommendations as the Court deems appropriate.

#### § 150.21 Appeals by the United States.

(a) *Restricted filing.* Only a representative of the government designated by the Judge Advocate General of the respective service may file an appeal by the United States under Article 62.

(b) *Counsel.* Counsel must be qualified and appointed, and give notice of appearance in accordance with these rules and those of the Judge Advocate General concerned.

(c) *Form of appeal.* The appeal must include those documents specified by Rule for Courts-Martial 908 and by applicable regulations of the Secretary concerned. A certificate of the Notice of Appeal described in Rule for Courts-Martial 908(b)(3) must be included. The certificate of service must reflect the date and time of the military judge's ruling or order from which the appeal is taken, and the time and date of service upon the military judge.

(d) *Time for filing.* All procedural Rules of the Court shall apply except as noted herein:

(1) The representative of the Government designated by the Judge Advocate General shall decide whether to file the appeal with the Court of Military Review. The trial counsel shall have 20 days from the date written notice is filed with the trial Court to forward the appeal, including an original and three copies of the record of trial, to the representative of the Government designated by the Judge Advocate General. The person designated by the Judge Advocate General shall promptly file the original record with the Clerk of the Court of Military Review and forward one copy to opposing counsel. Appellate government counsel shall have 20 days (or more upon a showing of good cause made by motion for enlargement within the 20 days) from the date the record is filed with the Court to file the appeal with supporting brief with the Court of Military Review. Should the Government decide to withdraw the appeal after the record is received by the Court of Military Review, appellate government counsel shall notify in writing the Court of Military Review. Appellate brief(s) shall be prepared in the manner prescribed by § 150.15.

(2) Appellee shall prepare an answer in the manner prescribed by § 150.15 and shall file such answer within 20 days after any filing of the government brief.

(e) The government shall diligently prosecute all appeals by the United States and the Court will give such appeals priority over all other proceedings where practicable.

#### § 150.22 Petitions for new trial.

(a) *General provisions.* The Court shall, as soon as practicable after receipt from the Judge Advocate General of a petition for a new trial is a case pending before the Court, notify appellate counsel of such receipt.

(b) *Additional investigation.* The Court on considering a petition for a new trial may, when it deems appropriate, refer the matter to Judge Advocate General who shall cause further investigation to be made and to report the results therefor to the Court.

(c) *Answer.* Appellate government counsel shall file an answer to a petition for new trial within 10 days after being notified of the receipt thereof by the Court.

(d) *Briefs.* Any brief in support of a petition for new trial shall be filed within 10 days of appellate government counsel's answer. If appellate government counsel fails to file an answer, accused may file a brief within 10 days after the expiration of the time allowed for the filing of appellate government counsel's answer. Appellate government counsel's brief shall be filed within 10 days of the filing of accused's brief. If accused fails to file a brief, appellate government counsel may file a brief within 10 days after the expiration of the time allowed for filing of accused's brief.

(e) *Oral argument.* Except when ordered by the Court, oral argument shall not be permitted on a petition for a new trial.

#### § 150.23 Motions.

(a) *Content.* All motions, unless made during the course of a hearing, shall state with particularity the relief sought and the grounds therefor. Motions, pleadings, and other papers desired to be filed with the Court may be combined in the same document, with the heading indicating, for example "MOTION TO FILE (SUPPLEMENTAL ASSIGNMENT OF ERRORS) (CERTIFICATE OF CORRECTION) (SUPPLEMENTAL PLEADING)", or "ASSIGNMENT OF ERRORS AND MOTION TO FILE ATTACHED REPORT OF MEDICAL BOARD".

(b) *Opposition.* Any opposition to a motion shall be filed within 5 days after receipt by the opposing party of service of the motion.

(c) *Leave to file.* Any pleading not required by these rules shall be accompanied by a motion for leave to file such pleading.

(d) *Oral argument.* Except when ordered by the Court, oral argument shall not be permitted on motions.

#### § 150.24 Continuances and interlocutory matters.

Except as otherwise provided in § 150.19(d) the Court, in its discretion, may extend any time limits prescribed and may dispose of any interlocutory or other appropriate matter not specifically covered by these rules, in such manner as may appear to be required for a full, fair, and expeditious consideration of the case. See § 150.4.

#### § 150.25 Suspension of rules.

For good cause shown, the Court acting as a whole or in panel may suspend the requirements or provisions of any of these rules in a particular case on petition of a party or on its own motion and may order proceedings in accordance with its discretion.

#### § 150.26 Internal rules.

The Chief Judge of the Court has the authority to prescribe internal rules for the Court.

#### § 150.27 Recordings, photographing, broadcasting, or telecasting of hearings.

The recording, photographing, broadcasting, or televising of any session of the Court or other activity relating thereto is prohibited unless specifically authorized by the Court sitting as a whole.

#### § 150.28 Format for direction for review.

##### Format for Direction for Review in the United States Army\* Court of Military Review

United States v.	Director for Review
Private (E-1) JOHN RICH- ARD DOE, SSN 000-00- 000, Company, 300th In- fantry Division, APO New York 09000.	Case No. _____ Tried at _____, on _____ before a G.C.M. appointed by _____

##### To the Honorable, the Judges of the United States Army\* Court of Military Review

1. Pursuant to the Uniform Code of Military Justice, Article 69, and the Rules of Practice and Procedure for Courts of Military Review, Rule 2b, the record of trial in the above-entitled case is forwarded for review pursuant to the Uniform Code of Military Justice, Article 66.

2. The accused was found guilty of a violation of the Uniform Code of Military Justice, Article(s) \_\_\_\_\_, was sentenced to \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_ by \_\_\_\_\_. The convening authority (approved the sentence) (approved only so much of the sentence as provided for \_\_\_\_\_) and the case was received in the United States Army\* Judiciary on \_\_\_\_\_.

3. In review pursuant to Uniform Code of Military Justice, Article 66, it is requested that attention be given to the following issues:

A. WHETHER THE SPECIFICATION OF CHARGE I FAILS TO STATE AN OFFENSE UNDER THE UNIFORM CODE OF MILITARY JUSTICE IN THAT IT DOES NOT ALLEGE THAT ACCUSED'S ABSENCE WAS WITHOUT AUTHORITY.

B. WHETHER THE MILITARY JUDGE FAILED TO TAILOR HIS INSTRUCTIONS ON SENTENCE TO THE MATTERS.

##### PRESENTED IN EXTENUATION AND MITIGATION.

John H. Brown,  
Major General, USA, The Judge Advocate General.

Received a copy of the foregoing Direction for Review this \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_.

Robert Jones,  
Colonel, JAGC, Chief, Government Appellate Division.

Harry Arnold,  
Colonel, JAGC, Chief, Defense Appellate Division.

John C. Smith, Esq.,  
1 Ace Street, Union, New Jersey 07083.

#### § 150.29 Format for assignment of errors and brief on behalf of accused.

##### Format for Assignment of Errors and Brief on Behalf of Accused (Rule 16) in the United States Army\* Court of Military Review

United States v.	Assignment of Errors and Brief on Behalf of Accused
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Private (E-1) JOHN RICH- ARD DOE, SSN 000-00- 000, U.S. Army, Replace- ment Detachment, 300th Administration Compa- ny, 300th Infantry Divi- sion, Fort Gordon, Geor- gia, 31093.	Case No. _____ Tried at _____, on _____ before a G.C.M. appointed by _____
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##### To the Honorable, the Judges of the United States Army\* Court of Military Review

On \_\_\_\_\_, the accused was tried by general court-martial. The charges and specifications upon which he was arraigned, his pleas, and the court-martial's findings were as follows:

Chg.	Art UCMJ	Specs	Summary of offense	Pleas	Findings
I.....	86	1	AWOL (28 Jan _____ 28 Feb _____)	G	G
		2	AWOL (3 Mar _____ 3 Apr _____)	G	G
II.....	121		Larceny of \$100.00, property of U.S. Government.....	NG	G

He was sentenced to dishonorable discharge, forfeiture of all pay and allowances, confinement at hard labor for 2 years, and reduction to the lowest enlisted grade. The convening authority approved only so much of the sentence as provides for bad conduct discharge, forfeiture of \$50.00 pay per month for 6 months, and reduction to the lowest enlisted grade.

##### Statement of Facts

Those facts necessary to a disposition of the assigned errors are set forth in the argument, *infra*.<sup>2</sup>

##### Errors and Argument

I. Specification 1 of Charge I Fails to State an Offense Under the Uniform Code of Military Justice.

The allegation of absence in Specification 1 of Charge I fails to indicate that the absence was "without proper authority." The United

States Court of Military Appeals has held that such an omission is fatal to the legal sufficiency of the specification. *United States v. Schultz*, 16 U.S.C.M.A. 488, 37 C.M.R. 108 (1967); *United States v. Fout*, 3 U.S.C.M.A. 565, 13 C.M.R. 121 (1953).

Wherefore, the findings as to Specification 1 of Charge I should be set aside and the sentence reassessed on the basis of the remaining charges and specifications.

\* Use Navy-Marine Corps, Air Force, or Coast Guard as the case may be.

<sup>1</sup> Use Navy-Marine Corps, Air Force, or Coast Guard as the case may be.

<sup>2</sup> Where a statement of facts generally applies to all of the assigned errors, it may be set forth here.

## II. The Military Judge Failed to Tailor His Instructions on Sentence to the Matters Presented in Mitigation and Extenuation.

There was extensive evidence presented on behalf of accused to establish his proper exemplary conduct in civilian and military life. (R. 108-133). The military judge limited his instructions on sentence to the maximum authorized punishment and the voting procedure.

In *United States v. Wheeler*, 17 U.S.C.M.A. 274, 38 C.M.R. 72 (1967), the failure of the military judge to tailor the instructions on sentence to the evidence presented in mitigation and extenuation was held to require a rehearing on sentence.

Wherefore, the sentence should be set aside and a rehearing authorized thereon.

### Sentence Appropriateness

Accused is an 18-year old first time offender (Post-trial Review, p. 3) and has sincerely urged his restoration to duty. (R. 100). His immediate superiors have expressed their willingness to have accused return to his organization. (R. 110).

Wherefore, only so much of the sentence as provides for forfeiture of \$50.00 pay per month for 6 months, confinement at hard labor for 6 months, and reduction to the lowest enlisted grade should be approved by his Honorable Court.

Date

John C. Smith, Esq.,

1 Ace Street, Union, New Jersey 07083.

Albert Jones,

Captain, JAGC, Appellate Defense Counsel.

Harry Arnold,

Colonel, JAGC, Appellate Defense Counsel.

### Certificate of Service

I certify that a copy of the foregoing was mailed or delivered to appellate Government counsel on the \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

Name

Address

Linda M. Lawson,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

November 19, 1986.

[FR Doc. 86-26504 Filed 11-24-86; 8:45 am]

BILLING CODE 3810-01-M

## DEPARTMENT OF TRANSPORTATION

### Coast Guard

### 33 CFR Part 165

[COTP Honolulu Regulation 86-06]

### Security Zone Regulations; Outer Apra Harbor, Guam, Marianas Islands

AGENCY: Coast Guard, DOT.

ACTION: Final rule.

**SUMMARY:** The Coast Guard is establishing a security zone around US Maritime Preposition Ships which will be moored at mooring buoy No. 702 located at 13°27'27.1" N, 144°38'8.1" E in Outer Apra Harbor, Guam, Marianas Islands. The security zone will extend for a distance of 100 yards in all directions from the Maritime Preposition Ships and mooring buoy No. 702. Additionally, a 50 yard security zone will remain in effect in all directions around mooring buoy No. 702 when no vessels are moored thereto. The zone is needed to safeguard Maritime Preposition Ships against destruction from sabotage or other causes of similar nature. Entry into this zone is prohibited unless authorized by the Captain of the Port.

**DATES:** This regulation becomes effective on October 16, 1986. Comments on this regulation must be received on or before December 31, 1986.

**ADDRESS:** Comments should be mailed to Commander, US Coast Guard Marianas Section, Box 176, FPO San Francisco 96630-5000. The comments will be available for inspection and copying at the Coast Guard Marine Safety Department of the Marianas Section Office in the Government of Guam Commercial Port Building.

Normal office hours are between 7:30 AM and 3:30 PM Monday through Friday, except holidays.

**FOR FURTHER INFORMATION CONTACT:** Commander J.M. MacDonald, (671) 339-6100, US Coast Guard, Marianas Section Office, Guam.

**SUPPLEMENTARY INFORMATION:** In accordance with 5 U.S.C. 553, a Notice of Proposed Rulemaking was not published for this regulation and good cause exists for making it effective in less than 30 days after Federal Register publication. Following normal rulemaking procedures would have been impractical and contrary to the public interest. The request for this regulation was not received until October 14, 1986 and there was not sufficient time remaining to publish a proposal in advance of the event for which the regulation is needed. Likewise, there was not sufficient time to provide for a delayed effective date. Immediate action is needed to prevent injury or damage to persons and equipment incident to the mooring of the first Maritime Preposition Ships in the port. Further, as a military affairs function of the United States, this regulation is exempt from the requirements of 5 U.S.C. 553, including the requirements for a notice of proposed rulemaking. Although this regulation is published as a final rule without prior notice, an opportunity for

public comment is nevertheless desirable to ensure that the regulation is both reasonable and workable. Accordingly, persons wishing to comment may do so by submitting written comments to the office listed under "address" in the preamble. Commenters should include their names and addresses, identify the docket number for the regulation, and give reasons for their comments. Based upon comments received, the regulation may be changed.

### Drafting Information

The drafters of this regulation are Commander J.M. MacDonald, Project Officer, USCG Marianas Section Office, and Lieutenant Commander R.W. Bogue, Project Attorney, Fourteenth Coast Guard District Legal Office.

### Discussion of the Regulation

The Navy has requested that a security zone be established. The incident requiring this regulation will begin on October 16, 1986 with the arrival in Apra Harbor of the PFC Dewayne T. Williams, one of four Maritime Preposition Ships to be stationed in the Guam area. Since mooring buoy No. 702 is a Navy maintained mooring buoy, and is located in excess of 500 yards from the main shipping channel in a general anchorage area, there should be no adverse impact on harbor use due to this security zone. This regulation is issued pursuant to 50 U.S.C. 191 as set out in the authority citation for all of Part 165.

### List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Security measures, Vessels, Waterways.

### Final Regulation

### PART 165—[AMENDED]

In consideration of the foregoing, Part 165 of Title 33, Code of Federal Regulations, is amended as follows:

1. The authority citation for Part 165 continues to read as follows:

Authority: 33 U.S.C. 1225 and 1231; 50 U.S.C. 191; 49 CFR 1.46 and 33 CFR 1.05-1(g), 6.04-1, 6.04-6 and 160.5.

2. Section 165.1401 (d) and (e) are added to read as follows: § 165.1401 Apra Harbor, Guam—security zone.

(d) *Location.* The following is designated as Security Zone C—The waters of Apra Outer Harbor, Guam around Naval mooring buoy No. 702 located at 13°27'27.1"N and 144°38' 8.1" E and Maritime Preposition Ships

moored thereto. The security zone will extend 100 yards in all directions around the vessel and its mooring. Additionally a 50 yard security zone will remain in effect in all directions around buoy No. 702 when no vessels are moored thereto.

(e) *Regulations.* (1) In accordance with general regulations in § 165.33 of this part, entry into Security Zone C is prohibited unless authorized by the Captain of the Port.

**EFFECTIVE DATE:** This regulation becomes effective on October 16, 1986.

Dated: October 16, 1986.

C.W. Gray,

*Captain, U.S. Coast Guard, Captain of the Port, Honolulu, Hawaii.*

[FR Doc. 86-26444 Filed 11-24-86; 8:45 am]

BILLING CODE 4910-14-M

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[A-1-FRL-3106-8]

### Approval and Promulgation of Implementation Plans; Massachusetts; Minor Amendments to the SIP

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** EPA is approving State Implementation Plan revisions submitted by the Commonwealth of Massachusetts. These revisions involve regulatory changes to SIP regulations previously approved by EPA involving New Source Review and Ash Content of Fuels. These revisions are administrative and/or procedural in nature, and do not affect air quality or the ability of the Commonwealth of Massachusetts to attain and maintain the National Ambient Air Quality Standards (NAAQS) for the criteria pollutants. The intended effect of this action is to approve revisions made by the Commonwealth of Massachusetts in accordance with section 110 of the Clean Air Act.

**EFFECTIVE DATE:** This action will be effective January 26, 1987, unless notice is received within 30 days that adverse or critical comments will be submitted.

**ADDRESSES:** Comments may be mailed to Louis F. Gitto, Director, Air Management Division, Room 2312, JFK Federal Building, Boston, MA 02203. Copies of the submittal and EPA's evaluation are available for public inspection during normal business hours

at the Environmental Protection Agency, Room 2312, JFK Federal Building, Boston, MA 02203; Public Information Reference Unit, Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; Office of the Federal Register, 1100 L Street, NW., Washington DC.; and the Department of Environmental Quality Engineering, Division of Air Quality Control, One Winter Street, 8th floor, Boston, MA 02108.

**FOR FURTHER INFORMATION CONTACT:** Lorenzo Thantu, (617) 223-4880; FTS 223-4880.

**SUPPLEMENTARY INFORMATION:** On December 3, 1985, January 31, and February 11, 1986, the Commonwealth of Massachusetts submitted revisions to its State Implementation Plan (SIP). These revisions include regulatory changes to SIP regulations previously approved by EPA, 310 CMR 7.02(2)(b) and 310 CMR 7.05(4).

The New Source Review regulation, 310 CMR 7.02(2)(b) is being corrected to include the term "major" before the word "modification." This section was meant to apply to major modifications in nonattainment areas by requiring major modifications to meet the requirements of 310 CMR 7.00 Appendix A, Emissions Offsets and Nonattainment Review, where the term "Major Modification" is defined.

Therefore, Regulations 310 CMR 7.02(2)(b) is amended by inserting the word "major" between the words "proposed" and "modification." Regulation 310 CMR 7.05(4), "Ash Content of Fuels," is being amended to include facilities located in the Berkshire Air Pollution Control District (BAPCD) among those subject to the existing subsection (b)(2) rather than the existing subsection (a). This amendment will allow facilities in the BAPCD (as facilities located in all other Massachusetts Air Pollution Control Districts are already allowed) to burn fossil fuel containing an ash content in excess of nine percent (9%) by dry weight, provided application is made to the Department of Environmental Quality Engineering (DEQE) and approved in writing by that agency.

In written testimony dated December 12, 1984, EPA requested that the amendment to allow facilities located in the BAPCD to be added to those subject to Regulation 310 CMR 7.05(4)(b) be evaluated for impacts on the National Ambient Air Quality Standards. The DEQE submitted additional information to address EPA's comments. EPA has evaluated this information and concludes that:

1. The facilities located in the BAPCD will now be regulated under § 7.05(4)(b) which will place more stringent plan review requirements upon those facilities than is currently required.

2. The amendment in no way alters the DEQE's responsibility to evaluate the impacts on the NAAQS by facilities making application to burn fossil fuel with an ash content in excess of nine percent by dry weight in all districts.

No adverse or critical comments were received at the public hearings that were held on November 27, 28, 29 and 30, 1984.

EPA is approving these SIP revisions without prior proposal because the Agency views these as noncontroversial amendments and anticipates no adverse comments. This action will be effective 60 days from the date of this *Federal Register* unless, within 30 days of its publication, notice is received that adverse or critical comments will be submitted. If such notice is received, this action will be withdrawn before the effective date by publishing two subsequent notices. One notice will withdraw the final action and another will begin a new rulemaking by announcing a proposal of the action and establishing a comment period. If no such comments are received, the public is advised that this action will be effective January 26, 1987.

### Final Action

EPA is approving the following revisions:

(1) A correction to Regulation 7.02(2)(b) to include the term "major" before the word "modification."

(2) An amendment to Regulation 310 CMR 7.05(4), Ash Content of Fuels, to include facilities located in the BAPCD among those subject to existing subsection (b)(2). This amendment will allow facilities in the BAPCD (as facilities located in all other Massachusetts Air Pollution Control Districts are already allowed) to burn fossil fuel containing an ash content in excess of nine percent by dry weight, provided application is made to the DEQE and approved in writing by the DEQE.

Under 5 U.S.C. 605(b), I certify that this SIP revision will not have a significant economic impact on a substantial number of small entities (see 46 FR 8709).

The Office of Management and Budget has exempted this rule from the requirements of section 3 of Executive Order 12291.

Under section 307(b)(1) of the Act, petitions for judicial review of this

action must be filed in the United States Court of Appeals for the appropriate circuit by January 26, 1987. This action may not be challenged later in proceedings to enforce its requirements (see 307(b)(2)).

#### List of Subjects in 40 CFR Part 52

Air pollution control, Ozone, Sulfur oxides, Nitrogen dioxide, Lead, Particulate matter, Carbon monoxide, Hydrocarbons, Intergovernmental relations, Reporting and Recordkeeping requirements, Incorporation by reference.

**Note.**—Incorporation by reference of the State Implementation Plan for the Commonwealth of Massachusetts was approved by the Director of the Federal Register on July 1, 1982.

Dated: September 29, 1986.

Lee M. Thomas,  
Administrator.

#### PART 52—[AMENDED]

Part 52 of Chapter I, Title 40, Code of Federal Regulations is amended as follows:

##### Subpart W—Massachusetts

1. The authority citation for Part 52 continues to read as follows:

Authority: 42 U.S.C. 7401-7642.

2. Section 52.1120 is amended by adding paragraph (c)(69) as follows:

##### § 52.1120 Identification of plan.

(c) \* \* \*

(69) Revisions to federally approved regulations 310 CMR 7.02(2)(b) and 310 CMR 7.05(4) were submitted on

December 3, 1985, January 31, 1986 and February 11, 1986 by the Department of Environmental Quality Engineering.

(i) Incorporation by Reference

(A) Regulation 310 CMR 7.02(2)(b), Department of Environmental Quality Engineering, Air Pollution Control, is corrected to include the word "major" before the word "modification".

(B) Regulation 310 CMR 7.05(4), Department of Environmental Quality Engineering, Air Pollution Control, Ash Content of Fuels.

(ii) Additional Materials

(A) The nonregulatory portions of the state submittals.

3. Section 52.1167 is amended by adding the following entries to Table 52.1167 at the following lines:

##### § 52.1167 EPA-approved Massachusetts State regulations.

State citation	Title/subject	Date submitted by State	Date approved by EPA	Federal Register citation	Section 52.1120(c)	Comments/unapproved sections
310 CMR 7.02.....	Plans and approval and emission limitations.	12/3/85 1/31/86 2/11/86	Nov. 25, 1986.	51 FR 42564	69	Adds the word "major" before the word "modification" at 7.02(2)(b).
310 CMR 7.05(4) ..	Ash content of fuels .....	12/3/85 1/31/86 2/11/86	Nov. 25, 1986.	51 FR 42564	69	Includes Berkshire Air Pollution Control District to 7.05(4)(b)(2) so facilities in that district can apply to burn fossil fuel with an ash content in excess of 9 pct by dry weight.

[FR Doc. 86-25342 Filed 11-24-86; 8:45 am]  
BILLING CODE 6560-50-M

#### 40 CFR Part 52

[A-1-FRL-3106-9]

#### Approval and Promulgation of Implementation Plans; Massachusetts; Temporary Sulfur-in-Fuel Revision for the Boston Housing Authority's Mission Hill Extension Family Development Facility

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** EPA is today approving a revision to the Massachusetts State Implementation Plan (SIP) which will allow the Boston Housing Authority's Mission Hill Extension Family Development facility in Boston, Massachusetts to increase the sulfur content of its residual fuel oil for up to 30 months. The burning of less expensive, higher sulfur content fuel oil will provide this source with some of the

capital needed to implement permanent energy conservation measures.

**EFFECTIVE DATE:** November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:** Cynthia L. Greene, (617) 223-5133; (FTS) 223-5133.

**ADDRESSES:** Copies of the Massachusetts submittal, which is incorporated by reference, are available for public inspection during regular business hours at the Environmental Protection Agency, Region I, Room 2313, JFK Federal Building, Boston, Massachusetts 02203; Public Information Reference Unit, Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; Office of the Federal Register, 1100 L Street, NW., Room 8401, Washington, DC; and the Department of Environmental Quality Engineering, 8th Floor, One Winter Street, Boston, Massachusetts 02108.

**SUPPLEMENTARY INFORMATION:** On May 12, 1986, the Massachusetts Department of Environmental Quality Engineering (DEQE) submitted a SIP revision for the Boston Housing Authority's Mission Hill Extension Family Development facility, in Boston, Massachusetts. The revision

allows the burning of 2.2% sulfur fuel oil in the facility's boilers for 30 months or less. During this time period, the Boston Housing Authority has committed to implement permanent energy conservation measures. The facility will use the savings realized during the temporary (30 months or less) utilization of less expensive 2.2% sulfur fuel oil to defray the costs of implementing the permanent energy conservation measures. The facility will return to burning 0.5% sulfur fuel oil by May 25, 1989.

#### Background

This temporary sulfur-in-fuel revision is being approved pursuant to the provisions of Regulation 310 CMR 7.19, "Interim Sulfur-in-Fuel Limitation for Fossil Fuel Utilization Facilities Pending Energy Conservation Measures." EPA's proposal to approve this regulation in a Notice of Proposed Rulemaking (NPR) on December 16, 1980 (45 FR 82675), specifies the requirements and conditions which sources must meet in order to qualify for temporary sulfur-in-fuel relaxations and the procedures

which the Massachusetts DEQE must use to determine that the emissions will not violate any National Ambient Air Quality Standards (NAAQS). Only sources rated at less than 250 million Btu per hour heat input, which are currently burning residual fuel oil, and have made a commitment to either (a) convert to an alternate fuel, or (b) implement conservation measures, are eligible for a temporary sulfur-in-fuel revision not to exceed 30 months. In the NPR, EPA also proposed approval of all individual sources that meet the eligibility requirements of this regulation.

#### EPA Evaluation

EPA has determined that the DEQE has approved the Boston Housing Authority's request to burn higher sulfur fuel oil at its Mission Hill Extension Family Development facility in accordance with the provisions of Regulation 310 CMR 7.19, and agrees that no air quality standards will be violated by the temporary burning of 2.2% sulfur fuel oil at this facility. EPA received no comments on its December 16, 1980 (45 FR 82675) proposal to approve individual sources of sulfur-in-fuel relaxations, and DEQE received no comments on its proposed approval of the temporary sulfur-in-fuel relaxation at the Boston Housing Authority facility in Boston. Since the public has had these other opportunities to comment, and since the Boston Housing Authority's facility is a small source (each piece of equipment is less than 250 million Btu per hour heat input), EPA is taking final action today to approve this SIP revision without first publishing a new proposed rulemaking. EPA believes that publishing a new NPR is unnecessary. EPA finds good cause for making this action effective immediately because the implementation plan is already in effect under State law and because this action imposes no additional regulatory burden.

#### Final Action

EPA is approving the proposed temporary sulfur-in-fuel relaxation to burn 2.2% sulfur fuel oil for the Boston Housing Authority's Mission Hill Extension Family Development facility.

Under 5 U.S.C. 605(b), the Administrator has certified that this action will not have significant economic impact on a substantial number of small entities (see 46 FR 8709).

The Office of Management and Budget has exempted this rule from the requirements of section 3 of Executive Order 12291.

Under 307(b)(1) of the Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by January 26, 1987.

This action may not be challenged later in proceedings to enforce its requirements (see 307(b)(2)).

#### List of Subjects in 40 CFR Part 52

Intergovernmental relations, Air pollution control, Ozone, Sulfur oxides, Nitrogen dioxides, Lead, Particulate matter, Carbon monoxide, and Hydrocarbons, Incorporation by reference.

**Note.**—Incorporation by Reference for the State Implementation Plan for the State of Massachusetts was approved by the Director of the Federal Register on July 1, 1982.

Dated: October 17, 1986.

Lee M. Thomas,  
Administrator.

#### PART 52—[AMENDED]

Part 52, Chapter 1, Title 40 of the Code of Federal Regulations is amended as follows:

##### Subpart W—Massachusetts

1. The authority citation for Part 52 continues to read as follows:

Authority: 42 U.S.C. 7401-7642.

2. Section 52.1120, is amended by adding paragraph (c) (71) as follows:

##### § 52.1120 Identification of plan.

\* \* \* \* \*

##### § 52.1167 EPA-approved Massachusetts State regulations.

State citation	Title/subject	Date submitted by State	Date approved by EPA	Federal Register citation	52.1120(c)	Comments/unapproved section
310 CMR 7.19.	Interim sulfur-in-fuel limitations for fossil fuel utilities pending conversion to an alternative fuel or implementation of permanent energy conservation measures.	05/12/86	Nov. 25, 1986.	51 FR 42565	71	Mission Hill Extension Family Development facility, in the Boston Housing Authority, Boston, MA to burn 2.2% until [30 months from FR citation].

[FR Doc. 86-25341 Filed 11-24-86; 8:45 am]

BILLING CODE 6560-50-M

#### 40 CFR Part 52

[Region II Docket No. 60; A-2-FRL-3108-3]

#### Approval and Promulgation of Implementation Plans; New Jersey Lead Plan

**AGENCY:** Environmental Protection Agency.

**ACTION:** Final rule.

(c) \* \* \*

(71) A revision submitted on May 12, 1986 allowing the burning of 2.2% sulfur content fuel oil at the Boston Housing Authority, Mission Hill Extension Family Development facility in Boston, Massachusetts for a period of up to 30 months, commencing on November 25, 1986.

(i) Incorporation by reference.

(A) Letter dated March 5, 1986 for the Mission Hill Extension Family Development facility, from Richard J. Chalpin, Acting Regional Engineer, allowing the temporary use of less expensive 2.2% sulfur fuel oil (for 30 months from the date of publication), the savings from which will be used to implement permanent energy conservation measures to reduce the on-site consumption of petroleum products. At the end of the temporary use period, the Boston Housing Authority, Mission Hill Extension Family Development facility will return to the use of 0.5% sulfur fuel oil. The particulate emission rate for this facility will not exceed 0.12 lbs per million Btu.

(B) Statements of Agreement signed April 4, 1986 by Doris Bunte, Administrator of Boston Housing Authority.

(C) Memorandum from Bruce K. Maillet to S. Russell Sylva dated April 18, 1986, subject: Decision Memo.

2. Section 52.1167, is amended by adding the following entry to Table 52.1167 at the following line:

**SUMMARY:** This notice announces, with one exception, final approval by the Environmental Protection Agency (EPA) of the New Jersey State Implementation Plan (SIP) for the attainment and maintenance of the national ambient air quality standards for lead. Final action is not being taken today with respect to the Borough of Carteret, where EPA is temporarily deferring action on the SIP until a revised control plan for the United States Metals Refining Company (USMR) is received from the State. Since EPA has found the majority of the New

Jersey SIP approvable, there is no good reason to delay final action on this part of the SIP while the State revises its control plan for USMR. Action on this revised control plan will be proposed in a future Federal Register notice as soon as possible after the plans' receipt. The State of New Jersey has submitted this SIP as required by section 110 of the Clean Air Act and 40 CFR Part 51.

**EFFECTIVE DATE:** This action is effective on November 25, 1986.

**ADDRESSES:** Copies of the State's submittals, public comments received on EPA's two notices of proposed rulemaking, and EPA Technical Support Documents concerning this action are available for inspection during normal business hours at the following locations:

Environmental Protection Agency,  
Region II, Jacob K. Javits Federal  
Building, 26 Federal Plaza, Room 1005,  
New York, New York 10278

New Jersey Department of  
Environmental Protection, Labor and  
Industry Building, John Fitch Plaza,  
Trenton, New Jersey 08625.

Copies of the States submittals are available at the following locations:

Environmental Protection Agency,  
Public Information Reference Unit, 401  
M Street SW., Washington, DC 20460  
Office of the Federal Register, 1100 L  
Street NW., Room 8301, Washington,  
DC 20460.

**FOR FURTHER INFORMATION CONTACT:**  
William S. Baker, Chief, Air Programs  
Branch, Environmental Protection  
Agency, Region II, Jacob K. Javits  
Federal Building, 26 Federal Plaza,  
Room 1005, New York, New York 10278  
(212) 264-3087.

#### **SUPPLEMENTARY INFORMATION:**

##### **I. Background**

On October 6, 1983, as required by section 110 of the Clean Air Act and 40 CFR Part 51, New Jersey submitted to the Environmental Protection Agency (EPA) a draft State Implementation Plan (SIP) for the attainment and maintenance of the air quality standards for lead. After review of the draft SIP, on December 29, 1983 (48 FR 57331), EPA determined that the draft New Jersey Lead SIP did not meet all the requirements of section 110(a) of the Clean Air Act and 40 CFR Part 51, Subparts B and E. In brief, EPA found that the October 6, 1983 submittal did not demonstrate attainment and maintenance of the lead standards in three urban areas (the Cities of Newark,

Jersey City, and Trenton) in which air monitoring data had shown violations of the lead standards, nor for all of the "significant" point sources that were identified by the State. (A "significant" point source is any source that emits at least 25 tons of lead per year or, in the case of certain specified lead industrial source categories, five tons per year.) The State identified five significant point sources: (1) Delco Remy, Division of General Motors Corporation, New Brunswick (Delco Remy), (2) National Smelting of New Jersey, Inc., Pedricktown (National Smelting), (3) Federated Metals, Inc., Newark (Federated Metals), (4) United States Metals Refining Co., Carteret (USMR), and (5) E.I. DuPont de Nemours and Co., Inc., Deepwater (Dupont), and two potential significant point sources (6) Heubach, Inc., Newark (Heubach) and (7) Rollins Environmental Services, Inc., Logan Township (Rollins). The draft SIP also did not provide adequately for the review of existing, new or modified lead sources with the potential to emit more than five tons per year of lead, as required under 40 CFR 51.18 and EPA policy. In addition, EPA requested that the State provide the procedures it used in preparing the emission inventories contained in its draft SIP.

Supplemental information on the Lead SIP was submitted to EPA by New Jersey on May 1, June 18, and August 15, 1984, and on February 7, 1985. Therefore, on February 25, 1985 (50 FR 7614), EPA republished action on the SIP in order to provide the public with the opportunity to comment on the significant changes made to the October 6, 1983 draft SIP and on EPA's review of these changes. In its supplemental information, the State addressed all the requirements identified in EPA's December 29, 1983 proposed rulemaking with two exceptions. The SIP still did not contain an adequate demonstration of attainment and maintenance for all significant sources and it still did not provide adequately for the review of existing, new or modified lead sources with the potential to emit more than five tons per year.

Subsequent to EPA's February 25, 1985 notice of proposed rulemaking, the State supplemented its Lead SIP on April 22, April 29, May 17, and July 16, 1985 with the following submittals:

- April 22, 1985—a letter transmitting revised Subchapters 8 and 18 of Chapter 27, Title 7 of the New Jersey Administrative Code (N.J.A.C. 7:27-8,

"Permits and Certificates," and N.J.A.C. 7:27-18, "Control and Prohibition of Air Pollution from New or Altered Sources Affecting Ambient Air Quality in Nonattainment Areas (Emission Offset Rule).") (A public hearing was held on August 2, 1984 on the revisions to Subchapters 8 and 18. Subchapter 8 was adopted February 4, 1985 and became effective on April 5, 1985; Subchapter 18 was adopted January 10, 1985 and became effective on March 11, 1985.)

- April 29, 1985—a letter transmitting the Lead SIP in its final modified form as requested in EPA's December 29, 1983 and February 25, 1985 proposed rulemakings and in correspondence between EPA and the State.

- May 17, 1985—a letter transmitting revised Subchapter 13 of Chapter 27, Title 7 of the New Jersey Administrative Code (N.J.A.C. 7:27-13, "Ambient Air Quality Standards"). (A public hearing was held on August 2, 1984. Subchapter 13 was adopted on April 26, 1985 and became effective on June 25, 1985.)

- July 16, 1985—a letter transmitting the following revisions to the Lead SIP:

- The date for completion of the "RACT-plus studies" for Delco Remy by October 1, 1985 was changed to November 1, 1985. (This study is currently anticipated to be completed by January 1, 1986.)

- The date for adoption of revisions to Subchapter 6, entitled "Control and Prohibition of Particles from Manufacturing Process," was changed from January 1, 1986 to June 30, 1986. The regulations to be adopted under Subchapter 6 will incorporate maximum allowable emissions rates for lead.

- The date for adopting regulations to Subchapter 19, tentatively entitled "Fuel Standards," to control the combustion of liquid fuels was changed from November 1, 1985 to April 1, 1986.

- The June 1, 1985 date to begin operations of the ambient monitor sited in the vicinity of the Dupont facility was changed to September 1, 1985. (The monitor was installed by September 1985.)

- The frequency of conducting sampling by USMR was changed from every other day to every third day. In addition, the State will initially analyze all samples for comparison with results reported by USMR. After samples have been analyzed for two calendar quarters, the State will make a determination as to whether a spot

check analysis will be sufficient for quality assurance.

## II. Review of the Final Lead SIP

Based on the submittals received from the State, EPA finds that the New Jersey Lead SIP adequately provides for attainment and maintenance of the lead standards with the exception previously noted. Specifically, the May 1, 1984 submittal demonstrated attainment and maintenance of the lead standards in the three urban areas of Newark, Jersey City, and Trenton by using a statistical analysis of the relationship between decreases in lead in the air and the reduction of lead in gasoline. The quantity of lead in gasoline and ambient air concentrations of lead were found to be closely related. Since the quantity of lead in gasoline will be substantially less than its 1982 value and in 1982 no urban area in New Jersey experienced violation of the lead standards, the State expects that the lead standards will be maintained in these three urban areas. The SIP also provides details on the methods the State employed to estimate fugitive lead emissions. These included field investigations, use of emission factors and engineering calculations.

Subsequent submittals by the State on April 22, 1985 and May 17, 1985 transmitted adopted revisions to Subchapter 8, "Permits and Certificates," Subchapter 13, "Ambient Air Quality Standards," and Subchapter 18,\* "Control and Prohibition of Air Pollution from New or Altered Sources Affecting Ambient Air Quality in Nonattainment Areas (Emission Offset Rule)."

Subchapter 18 defines a "major facility" for lead as any stationary source of lead that emits, or has the potential to emit, five tons per year or more of lead or lead compounds measured as lead, and defines a "significant new increase" in lead emissions as a rate increase of 0.6 tons per year of either actual emissions or in the capability to increase emissions. Subchapter 18 also requires that fugitive lead emissions, to the extent quantifiable, be entered into the total emissions from major facilities. Subchapter 8 requires that all major new lead point sources or significant new increases in lead emissions at major facilities be analyzed to determine whether a violation of the standards for lead will occur. In Subchapter 13, the State adopted air quality standards for lead. EPA finds the revisions to these regulations adequate for the review of

existing, new or modified lead sources, with the potential to emit more than five tons of lead per year.

In addition, the subsequent submittals from the State provide an adequate demonstration of the attainment of the lead standards by the 1988 deadline (three years from today's date) for all significant lead sources in New Jersey with the exception of USMR. The SIP identifies five significant point sources and two additional sources that have the potential to be significant sources. The status of the sources requiring review and evaluation are:

- *Delco Remy* (lead-acid storage battery manufacturer and secondary lead smelter)—Modelling performed by the State predicted a marginal violation of the ambient lead standards. Due to uncertainty in the accuracy of the lead emission rates employed in the model, the State sited a high-volume air sampler (ambient monitor) near the location of the modelled violation. Violations of the lead standards have been measured by this monitor. When an ambient violation is measured and the suspected source of the violation has "reasonably available control technology" (RACT) applied to all process and non-process emission points, EPA policy allows a "RACT-plus studies" approach for an approvable SIP. Delco-Remy is carrying out such a study under a detailed study protocol included in the SIP. The study is designed to identify individual emission points that may be contributing to the measured violation and includes a schedule for the implementation of the needed control measures. In addition, the State has committed to adopting regulations under Subchapter 6 to incorporate specific maximum lead emissions in the event that such limits are determined to be required as supplemental regulatory authority to attain the lead standards in the vicinity of the Delco Remy facility. EPA received a draft of this study from NJDEP on March 26, 1986. It shows that ambient levels of lead in the vicinity of Delco Remy are below the standard. The monitored violations during the fourth quarter of 1983 and first quarter of 1984 are attributed to the burning of non-commercial fuel oil in combination with malfunctioning control equipment.

To maintain the standard, NJDEP is revising the permits (consistent with the modeling results) for Delco Remy to reflect emission rates no greater than twice the stack test rates. There are 19 stacks at the Delco Remy facility emitting lead; to date, 15 of these stacks have been tested; the emission rates allowed by the permits are substantially

higher than the emission rates actually observed during stack tests. In addition, if the stack test emission rates for the four stacks that are to be tested in the fall of 1986 are substantially lower than permitted rates, the permits for these stacks will also be revised. These permits will be incorporated into the SIP.

- *National Smelting* (lead smelter)—National Smelting has permanently ceased operations, and all of the facility's operating permits have been terminated by the State.

- *Federated Metals* (secondary lead smelter)—Federated Metals has also permanently ceased operations, and all of its operating permits have been terminated by the State.

- *USMR* (secondary copper smelter)—As a part of its Lead SIP, New Jersey has submitted an Administrative Consent Order that it issued to USMR requiring specific control measures to result in 90 percent control efficiency of fugitive emissions. Modelling of the facility had shown that implementation of the measures contained in this Order should have provided for attainment of the lead standards in its vicinity. To confirm this demonstration, two ambient monitors were established near the predicted point of maximum impact.

However, it is now apparent that this demonstration of attainment was inaccurate and that additional control measures are needed at this location. This is because, despite the implementation of all control measures contained in the New Jersey Order, violations continue to be monitored. Therefore, EPA's proposed approval of the SIP's control strategy with regard to USMR has been shown to be based on an apparently erroneous demonstration of attainment.

Because this information has only recently come to light and because on March 4, 1986, an NJDEP Administrative Order cited USMR for a number of violations (which collectively represent violations of NJDEP regulations, permit conditions, terms of the 1984 Consent Order, and of the New Jersey Air Pollution Control Act), EPA is not taking action today on the SIP with respect to the Borough of Carteret, where USMR is located.

The principal provisions of the March 4, 1986 Administrative Order require that USMR submit to the NJDEP (i) inventory and operational information on its refining and smelting activity, including its anticipated closure date (October 1, 1986), (ii) an analysis of its past, present, and future staffing levels for its smelting and refining operations, and (iii) a workplan (and time schedule

\*EPA is approving in today's Federal Register notice only those revisions to Subchapter 18 that relate to the Lead SIP.

for its implementation), prepared by an independent lead consultant, by which USMR will achieve and maintain the ambient air quality standard for lead.

In addition, USMR is required to (i) hire a second independent consultant who will, pending NJDEP approval, conduct stack emissions testing of the cupola stack for ten parameters, including lead, and (ii) install four additional high-volume ambient air samplers, the filters of which will be analyzed for lead and other pollutants.

As a result of the Administrative Order, EPA expects to receive from the State a revised control plan for this source. At that time, EPA will provide in the Federal Register an opportunity for public comment on the State's submittal. However, if after December 30, 1987 the State fails to provide the expected control plan, EPA will propose a federal strategy.

- *Dupont* (lead gasoline additive manufacturer)—Modelling performed by the State predicted marginal attainment of the standards in the vicinity of the Dupont facility. The State is operating an ambient monitor in the vicinity of the facility to confirm the attainment status. Monitoring data for the last two quarters of 1985 and the first quarter of 1986 shows attainment of the standards in the vicinity of the facility.

- *Heubach* (lead chromate pigment manufacturer)—Modelling by the State of the allowable emission rates listed in the facility's operating permit predicted a violation of the lead standards. The facility indicated that the emission rates used by the State in its dispersion modelling were much higher than actual values. As in the case with Delco Remy, the State elected to carry out a "RACT-plus studies" investigation for Heubach in order to confirm the attainment status of this facility and implement additional controls if necessary.

The study was completed in January 1986 and submitted to EPA by NJDEP on February 28, 1986. Based on the findings that RACT has been adequately demonstrated, emission rates have been quantified, monitored ambient levels are below the standard, and dispersion modelling predicts total concentrations below the standard, the "RACT-plus study" results show that lead air quality standards have been and will continue to be attained in the vicinity of the Heubach plant. Therefore, it does not appear that any orders or additional control measures are necessary.

However, the State is revising the facility's operating permit (consistent with the modelling results), lowering allowable emissions limits to reflect actual or stack test rates. These permits will be incorporated into the SIP. Also,

ambient lead monitoring will be continued in the vicinity of the plant.

- *Rollins* (waste chemical incinerator)—The State's analysis revealed negligible fugitive emissions and predicted no violation of the lead standard as a result of the emissions from the Rollins facility.

### III. Public Comments

#### A. Introduction

During the public comment period established by its December 29, 1983 proposal, EPA received comments from five commentors. As a result of EPA's February 25, 1985 reproposal, comments were received from two commentors. A majority of the issues raised by the commentors on the December 29, 1983 proposal were resolved by the State in its supplemental submittals prior to the EPA's February 25, 1985 reproposal. Comments are summarized and discussed in this Section of today's notice.

#### B. Comments on the December 29, 1983 Proposal

##### 1. Resource Recovery Facilities

*Comment:* The SIP does not provide for adequate control strategies for lead emissions from resource recovery facilities. The projected emission inventory does not specify the locations of planned resource recovery facilities or the ambient air quality impact of their lead emissions.

*Response:* The New Jersey Lead SIP requires that, prior to the issuance of an operating permit to a new resource recovery facility, it be evaluated to demonstrate that the impact of its emissions will not cause a violation of the lead standards. These facilities are subject to provisions of State regulations contained in the SIP (e.g., Subchapters 8, 13, and 18) and EPA Prevention of Significant Deterioration (PSD) regulations, 40 CFR Part 52, which prevent construction of a facility that will cause a violation of air quality standards.

*Comment:* Resource recovery facilities are planned for the most densely populated counties in the State. The same populations that have been subject to high lead concentrations from a variety of sources will again be subject to additional emissions released from these facilities. A study should be conducted to determine if densely populated areas are a desirable location for resource recovery facilities from the standpoint of lead.

*Response:* As previously noted, before any resource recovery facility receives an operating permit, the facility has to demonstrate that it will not cause a

violation of the ambient standards for lead or other pollutants.

*Comment:* EPA should establish an interim date for reexamination of the New Jersey Lead SIP, requiring submittal of an entire new Lead SIP by the State with public comments, if more than three resource recovery facilities are in operation before 1994.

*Response:* A revision to the SIP may be required if, under provisions of section 110(a)(2)(H) of the Clean Air Act, the plan is found "substantially inadequate." Because, as discussed earlier, the SIP contains an adequate mechanism for analyzing the impact of new sources, such a finding appears unlikely.

*Comment:* The State's "RACT-plus studies" program for Heubach fails to consider the potential lead emissions from the Essex County resource recovery facility as a possible area source in its assessment of ambient lead concentrations.

*Response:* As stated earlier, before a resource recovery facility can operate, the State must determine the impact of its emissions. Modeling done of the Essex County resource recovery facility has shown that ambient concentrations of lead at ground level will be "less than significant" and thus need not be specifically considered in the Heubach "RACT-plus studies."

##### 2. Stationary Source Control Measures

*Comment:* In determining needed control measures, the State inspected Federated Metals during curtailed operations and calculated fugitive emissions without returning to the facility when it was operating at full capacity. The State failed to take into account that Federated Metals is adjacent to a densely populated residential neighborhood and is in an area already exposed to high concentrations of lead and subject to additional impacts from heavily traveled roadways and the planned Essex County resource recovery facility.

*Response:* Federated Metals has permanently ceased operations and all operating permits have been terminated.

*Comment:* The State has not evaluated Alpha Metals, Inc., Jersey City; Campbell Soup Co., Camden; E.I. DuPont de Nemours and Co., Newark; and Rollins Environmental Services, Inc., Logan Township for actual lead emissions and ambient lead concentrations. The SIP states that these facilities are permitted to emit more than five tons per year.

*Response:* The SIP demonstrates that the lead standards will be attained and maintained in the vicinity of all

significant point sources that emit 25 tons or more, or in the case of certain specified lead source categories, five tons per year or more. The SIP identifies and evaluates five sources, as previously mentioned, which included Heubach (formerly E.I. Dupont de Nemours). In addition, the State identified Rollins as a "potential" significant source requiring review. Modeling based on stack test results and assuming no fugitive emissions based on site inspection predicted no violation of the ambient standards for lead in the vicinity of the facility. Under EPA guidelines, Alpha Metals and Campbell Soup are not considered to be significant point sources, and thus no formal demonstration of attainment is necessary.

*Comment:* The Lead SIP refers to five point sources as major potential violators of the lead standard. However, the SIP contains no strategy for dealing with these sources. Although five separate consent orders are to be negotiated with these sources, it is not apparent what these orders will require of the sources or what effect they will have on lead emissions.

*Response:* The five point sources that this comment refers to are: (1) Delco-Remy, (2) National Smelting, (3) USMR, (4) Federated Metals, and (5) DuPont. See section II of today's notice for a discussion of each source.

### 3. Air Quality Monitoring

*Comment:* The State has not committed to carrying out all of the data collection activities necessary to provide an accurate picture of the extent of lead pollution in New Jersey. The SIP contains inadequate air monitoring data and information on fugitive emissions.

*Response:* The State operates ambient monitors in the vicinity of all significant sources located in New Jersey. Lead monitors are in place at Heubach, USMR, Delco Remy, National Smelting, and Dupont. In addition, lead monitors are also located in many urban areas including Trenton, Jersey City, Newark, Clifton, Union City, Pennsauken and Camden. (Monitoring for lead was discontinued at the Camden site as of June 30, 1984.)

*Comment:* Having only one monitor at Military Park in downtown Newark is not adequate to measure the air quality of Essex County. The State has identified four point sources that are of concern in Essex County: Heubach, Federated Metals, Essex Metal Alloy, and Arlington Lead Burning. Nothing in the SIP indicates that the State knows what the air quality in the Ironbound District of Newark actually is.

*Response:* The lead monitor at Military Park, Newark is representative of a large part of Newark, where high concentrations of lead can occur due to emissions from mobile and industrial sources. The SIP describes the procedures used to demonstrate that all areas of New Jersey will attain the lead standards. These procedures include consideration of both monitoring and modelling data. They are useful for indicating attainment of the lead standards in all parts of Newark and the remainder of Essex County.

*Comment:* The SIP ignores obvious pollution hot spots. For example, there is no monitoring in the Bayway area of Elizabeth.

*Response:* The SIP addresses all areas of the State where high lead emissions could cause violations of the lead standards. The procedures that the State used to demonstrate statewide attainment of the standards is described in this document.

*Comment:* The State has too few monitors to measure lead emissions from mobile sources and no sampling program to measure re-entrained highway dust. Areas most affected by lead emissions from mobile sources have not been identified.

*Response:* Monitors that reflect traffic oriented lead exposure are located in Newark, Union City, Clifton, Trenton, Jersey City, and Pennsauken. The Clifton and Pennsauken monitors are specifically sited near major roadways to measure lead emissions from mobile sources and re-entrained highway dust. These monitors, which are primarily affected by motor vehicles, have shown a downward trend in lead concentrations and have recorded no violations of the standards since 1979.

*Comment:* Modelling at Dupont shows marginal attainment in the vicinity of this facility. Consequently, the State should commit to installation of a monitoring network.

*Response:* An ambient monitor for lead has been sited in the vicinity of the Dupont facility. The monitor shows attainment of the standard in the vicinity of the facility.

### 4. Mobile Source Control Measures

*Comment:* The SIP depends on the federal phase down of lead in gasoline for the reduction of lead from mobile sources, but without data to support this assumption or without adopting additional control strategies.

*Response:* The State's legal authority to regulate the amount of lead in fuels is restricted under section 211 of the Clean Air Act. A new lead standard of 0.10 gram of lead per leaded gallon of gasoline (gplg) became effective on

January 1, 1986 (an interim standard of 0.50 gplg had become effective on July 1, 1985). Prior to July 1, 1985 the standard was 1.10 gplg. In view of this schedule, it is acceptable for the State to assume that a reduction in lead emissions from motor vehicles would occur without a New Jersey control strategy. Data from the Clifton and Pennsauken monitors will be used to confirm this assumption.

*Comment:* The SIP fails to determine the effectiveness of the New Jersey Inspection and Maintenance (I/M) program in preventing misfueling. The State's intentions to promulgate "undefined" anti-tampering and anti-misfueling regulations at some "undetermined" point in the future makes reviewing these regulations impossible.

*Response:* The State's I/M program serves to control the amount of carbon monoxide and hydrocarbons emitted from motor vehicles. Fueling with leaded gasoline in vehicles designed for unleaded gasoline poisons the catalytic converter, thereby, increasing the hydrocarbon and carbon monoxide emissions by more than 400 percent. Therefore, an I/M program in and of itself can deter motorists from misfueling.

Under provisions of recently promulgated revisions to Subchapter 15, "Control and Prohibition of Air Pollution from Light-Duty Gasoline-Fueled Motor Vehicles," New Jersey's anti-tampering program started in December, 1985 and will be phased-in through May 1987. 1982 and newer vehicles are now covered; on January 1, 1987, 1979-1981 vehicles will be included and on May 1, 1987 it will include 1975 and later vehicle models. The anti-tampering inspection consists of a visual check of the catalytic converter and the fuel neck inlet restrictor. (The restrictor is a device that prevents the use of the larger-sized nozzle that dispenses leaded gasoline.) Motorists tampering with their fuel neck inlet restrictor or catalytic converter are required to replace their catalytic converter.

*Comment:* A recent audit by EPA at four private garages showed that three of the garages had not failed any vehicles for excess emissions. State inspection stations have 20 to 25% emission failure rates. It is difficult to predict if this "indifferent" attitude by the private garages toward emissions will also prevail in the anti-tampering inspection.

*Response:* Beginning May 1, 1985 all garages in the private inspection system must use the high quality test equipment specified in Subchapter 15. The mandatory recording on a tape-cassette

of each emission test and the printing of test results for the motorist helps to ensure adequate quality control. In addition, all garages must have mechanics who are certified in vehicle emissions testing. The State will continue to audit the activities of the private garages.

*Comment:* Every vehicle should be inspected at a State inspection station at least every other year to ensure compliance with requirements of the I/M program.

*Response:* The purpose of allowing private garages to perform inspections was to reduce waiting lines and alleged overcrowding at the State inspection stations. EPA approved this modification to the New Jersey I/M program as meeting Clean Air Act requirements.

## 5. General Comments

*Comment:* The National Smelting facility has been shut down. The State should take prompt action in cleaning up the remaining slag heaps, which have been modelled to predict an ambient lead concentration of  $0.8 \mu\text{g}/\text{m}^3$ . The State could use the \$600,000 held in escrow from an earlier consent order with the facility to fund the clean-up.

*Response:* It is our understanding that the State is considering the possibility of using the escrow funds for the purpose of removing the remaining slag heaps.

*Comment:* EPA required that the State revise three existing State air pollution regulations (Subchapters 8, 13 and 18) to adequately provide for the review of new sources. The State's failure to adopt final regulations as part of the SIP does not give adequate opportunity for public participation.

*Response:* The final revisions to Subchapters 8, 13, and 18 have been submitted to EPA as part of the Lead SIP. The public was given an opportunity to comment during a public hearing held prior to the adoption of the revisions of these regulations.

*Comment:* Issues affecting air quality in the Ironbound District of Newark have been ignored in the SIP. Recent soil sampling in the Ironbound, conducted by EPA as part of its dioxin investigation, have revealed lead concentrations in soil to be as high as 1600 milligrams per kilogram. Also, the heavy traffic in the Ironbound District would contribute to excessive amounts of lead from vehicle exhaust emissions and from "kicking up" dust and dirt in which lead has been entrained.

*Response:* The State is operating ambient monitors in Newark which are affected by lead emissions from industrial and mobile sources. EPA finds these ambient monitors to be an

adequate indication of the air quality in Newark, and finds that the State has submitted an adequate demonstration for the attainment of the lead standards for the City of Newark. In addition, although the State has conducted some soil sampling, soil sampling is not required by EPA as part of a State's demonstration for the attainment and maintenance of the lead standards.

In general, EPA regulations and policy required the State to demonstrate attainment and maintenance of the lead standards only in the vicinity of significant sources and where violations have been measured with ambient monitors. The State has met these requirements.

## C. Comments on the February 25, 1985 Reproposal

### 1. Stationary Source Control Measures

*Comment:* Instead of performing "RACT-plus studies" for Delco Remy, and Heubach, the State should develop and implement emission control strategies immediately for these two facilities. This urgent need results from:

- Monitoring data which showed a measured quarterly average concentration at the Delco Remy facility of  $2.12 \mu\text{g}/\text{m}^3$  for the fourth quarter of 1983 and  $1.73 \mu\text{g}/\text{m}^3$  for the first quarter of 1984.

- A State estimated lead concentration at the Heubach facility of  $7.0 \mu\text{g}/\text{m}^3$ .

EPA allows a "RACT-plus studies" approach to SIP development.

*Response:* In cases where RACT is in place and a demonstration of attainment of the air quality standards is inconclusive, EPA allows a "RACT-plus studies" approach to SIP development. The "RACT-plus studies" approach consists of: (1) A justification that the levels of emission controls in existence or adopted constitute RACT, (2) a determination of any additional emission points that may possibly be controlled and potential control measures that go beyond RACT, and (3) an air monitoring network. Delco-Remy and Heubach both have RACT level emission controls and air monitors in place. The cause of the measured and modelled violations are thereby being determined so that control measures can be selected and implemented.

*Comment:* The State proposes to have by January 1986 control measures that will lead to attainment of the lead standards in the vicinity of both the Heubach and Delco-Remy facilities. Thus, under the SIP, control measures will not be implemented until one year prior to the attainment deadline. These control measures should have been

selected in time for submission in the SIP so that the public could review and comment on them in sufficient time for changes to be made prior to the attainment deadline.

*Response:* The cause of the violations and the necessary control strategies will be determined and implemented earlier than the attainment deadline. (Note.—Attainment is required by 1988.) Public review and comment will be necessary if any SIP revision is needed.

*Comment:* The State uses general and imprecise language to describe the ambient air monitoring program for Dupont; the cursory reference in the Lead SIP does not appear to conform to the rather specific condition established by EPA.

*Response:* In the operation of the air monitor at Dupont, the State will follow the sampling and analytical procedures as outlined in EPA's regulations found in 40 CFR Part 58. EPA finds this air monitoring protocol to be adequate for obtaining air monitoring data.

### 2. General Comments

*Comment:* The SIP emphasizes proposed anti-tampering regulations as a means of significantly reducing the incidence of misfueling in New Jersey. These proposed regulations include a test paper examination for the presence of lead in the vehicle exhaust, which would then enable the inspector to detect misfueling. However, revisions to Subchapter 15 adopted on June 5, 1985 did not include the lead test paper procedure as a mandatory screening procedure.

*Response:* Plumbtesmo paper is a litmus type paper which can be used to detect lead deposits in the tailpipe of vehicles designed to use unleaded gasoline. A positive result indicates that the car has used leaded gasoline sometime in the past.

It is EPA's understanding that the State has studied the use of such paper for possible future incorporation into its anti-tampering program. NJDEP is preparing a written report describing this study. The State's failure to incorporate a plumbtesmo test in its initial anti-tampering program does not invalidate the attainment demonstration in the New Jersey Lead SIP.

*Comment:* The SIP should include an explicit State commitment to allocate appropriate financial and staff resources to obtain the reduction of lead emissions at existing lead sources. In the past, there have been assertions that the State lacks the staff and finances to undertake enforcement actions under particular environmental laws. To avoid this possibility in the future with regard to

existing sources of lead emissions, the State should now make these commitments explicit in the SIP and thereby ensure enforcement in the future.

*Response:* Each year, EPA awards to the State air pollution control grant funds for implementing the State's air pollution control program. As part of this process, the State develops a comprehensive work plan that reflects the priorities established by EPA and the State. This process will help to ensure that adequate resources are available for complying with the provisions of the Lead SIP.

*Comment:* The State has committed itself to a schedule for adopting regulations that incorporates maximum allowable lead emission limitations (Subchapter 6) and regulations to govern the combustion of liquid fuels (Subchapter 19), as required by EPA. However, these regulations, which are an essential part of any enforcement strategy, should be adopted before approval of the Lead SIP. Otherwise, a vital control element is left to future development, without any present means of assessing its actual or potential effectiveness to reduce lead emissions.

*Response:* EPA did require the State to adopt regulatory changes to Subchapters 6, 8, 13, and 18. With the exception of Subchapter 6, these have been submitted to EPA. Subchapter 6 would limit emissions from the Heubach and Delco Remy facilities in the event such limits are determined necessary. The date for revisions to Subchapter 6 is deferred until after the completion of the "RACT-plus studies" to allow the State to determine the specific controls which may be necessary. In addition, EPA accepts June 30, 1986 as an appropriate date for the adoption of Subchapter 19 since EPA did not require its adoption as a measure to attain and maintain the standards for lead.

*Comment:* A significant amount of material has not yet been submitted to EPA by the State. This material should now be available to the public for review and comment. As such, EPA should formally extend the comment period to allow for review and comment.

*Response:* Submittals that were received from the State following the end of the formal comment period were not available for public review and comment. Even though the majority of the Lead SIP was available prior to the end of the comment period, EPA extended the comment period for the two commentors who requested such an extension. These two commentors provided the only comments received on

EPA's February 25, 1985 Federal Register notice of proposed rulemaking.

#### D. Comments on USMR

##### 1. Comments on the December 29, 1983 Proposal

*Comment:* Present operations and controls at USMR were evaluated by the State and the facility and recommendations for the development of state-of-the-art controls have been incorporated into the consent order which now governs the operations at USMR. Extensive modelling conducted by USMR and the State have indicated that, upon completion of the items required by the consent order, USMR will operate within the emissions limits proposed or enforced by the State. In addition, since the signing of the consent order, USMR has complied with the terms of the order.

*Response:* EPA agrees that USMR has completed all measures to control emissions from the cupola stack as set forth in the consent order. However, as mentioned in section II of today's notice, because of continued measured violations of the lead standards, additional control measures appear necessary.

*Comment:* The reliance on consent orders instead of specific emission standards violates the Clean Air Act requirements that SIPs be specific and enforceable. In addition, the use of a consent order for USMR is unworkable, based on the history of USMR's compliance with control permits and consent order deadlines.

*Response:* Consent orders are a legally enforceable means of assuring the reduction of emissions from specific stationary sources. See section II of today's notice for a discussion of USMR.

##### 2. Comments on the February 25, 1985 Reproposal

*Comment:* USMR has submitted air quality data to the State from monitoring conducting from July through September 1984. The data is part of an October 1984 report entitled, "Air Quality Assessment of USMR/AMAX Stack and Fugitive Process Emissions." The USMR smelter, however, was not in operation during most of July, nor in August, September, October or November. In addition, USMR admits that an on-site audit of one monitor, during this period, revealed a discrepancy in its flowrate. Therefore, statistics or data derived prior to the approval of the monitoring protocol should not be used or incorporated into the SIP.

*Response:* This monitoring data is not part of the SIP and was not relied on

when developing control strategies for USMR.

*Comment:* USMR is sampling only on every-third-day instead of every other day as specified in the monitoring protocol.

*Response:* The monitoring protocol has been changed to reflect an every-third-day sampling frequency. Every-third-day monitoring is twice as often as EPA regulations require and provides sufficient data to determine the ambient concentration of lead.

*Comment:* The State should establish more stringent review procedures or have an independent party review the monitoring being done by USMR at its facility.

*Response:* The State has committed initially to analyzing all samples taken at USMR, and will determine, after two calendar quarters of data has been analyzed, whether a less exhausting spot check analysis will be sufficient for maintaining quality control. This procedure provides sufficient oversight of the USMR monitoring program.

*Comment:* The two monitors that EPA required to be established at USMR will not reflect maximum emissions impact.

*Response:* The air monitoring sites established by the State and USMR meet EPA's requirement in that they are located "near sites predicted by dispersion modeling to experience the maximum impacts of the facility's emissions." The predicted peak concentration is located in the waterway between Staten Island and New Jersey, the Arthur Kill. The only off-plant and non-water location where violations are predicted by modelling is across the Arthur Kill on Staten Island. Monitoring was not found to be possible in this area since it is an active landfill and no stable site could be found. However, New York State has sited an ambient monitor on Staten Island near the landfill. The existing on-plant USMR monitoring sites are closer to the location of the predicted peak concentration than other off-plant sites that are on-land, including the Fresh Kills Landfill.

*Comment:* The monitoring practices at USMR should conform to a final protocol, including a more complete monitoring capability. No monitoring data should be accepted until EPA and the public review the monitoring protocol and it becomes part of the SIP.

*Response:* EPA finds that USMR's protocol, as contained in the SIP, is acceptable. The public was given an opportunity to comment on the monitoring protocol for USMR during EPA's December 29, 1983 and February 25, 1985 proposed actions.

*Comment:* In addition to the two monitors that are part of the SIP's monitoring protocol for the USMR facility, USMR operates two other monitors. Previous monitoring revealed that some of the highest concentrations of pollutants were recorded during various periods at the northwest monitor as a result of sea breeze effects, thermal internal boundary layer (TIBL) effects, downwash, inversions and wind direction during the warmer weather. EPA should, therefore, require the use of these two additional monitors at USMR or similar ones off-site.

*Response:* The national ambient air quality standards for lead are based on a quarterly average. Although high daily average concentrations can occur, quarterly average concentrations are predicted to be lower at the sites to the west of the facility, where the commentor suggest the two additional monitors be sited.

*Comment:* It is not clear whether the Climatological Dispersion Model (CDM) used by the State to estimate lead concentrations in the vicinity of USMR incorporated the sea breeze effects from southeasterly winds, or whether it even has the capacity to do so. If the CDM model is not capable of considering specific meteorological conditions at USMR, then the conclusion that the peak impact will occur 500 meters east of the facility, may be a significant error. This may be especially true where trapping of pollutants occur because of various conditions other than westerly winds.

*Response:* The meteorological data used by the State is representative of the area around USMR. EPA has reviewed the modelling done by the State for its Lead SIP and EPA is confident that the modelling predicts the correct area for the peak concentrations from lead emitted by USMR.

*Comment:* USMR will be utilizing the two monitors that are located on USMR property. Because they are located on plant property, the two monitors are not necessarily in the ambient air, as defined by EPA. The State may, therefore, have to relocate these monitors.

*Response:* The two monitors are sufficiently close to the boundary line of the USMR plant property to be representative of the air outside of the plant.

*Comment:* The State monitored total suspended particulates (TSP) at the Carteret Sewage Treatment plant until at least 1980. Very significant concentrations of TSP were measured at this site. If the site is still available it should be utilized as part of the monitoring that is to be conducted under the Lead SIP. If the site is no longer

available, another site should be located in Carteret to measure TSP and lead concentrations.

*Response:* The State operates a National Air Monitoring Station for TSP at the Carteret Sewage Treatment Plant; it will be available for SIP monitoring for TSP. Since the monitoring sites near USMR are near the area of peak concentration, monitoring for lead at Carteret is not needed.

*Comment:* The SIP states that the USMR consent order will result in a 90 percent reduction in fugitive emissions, but no percentage reduction is specified in the consent order. The SIP does not include an evaluation of actual controls to be used at USMR and their emissions reduction potential.

*Response:* See section II of today's notice for a discussion of USMR.

*Comment:* EPA should consider the recent data in an April report prepared by USMR that contains the monitoring data that covers the period of October 1984 through December 1984. The data in the report demonstrates a dramatic exceedence of the lead standards in the vicinity of USMR and should be considered prior to the approval of the SIP.

*Response:* See section II of today's notice for a discussion of USMR.

#### IV. Conclusion

Based on its review of the submitted documents and the comments received, EPA finds that the New Jersey SIP adequately provides for the attainment and maintenance of the air quality standards for lead in all areas of New Jersey with the exception of the Borough of Carteret. Therefore, EPA is today approving the New Jersey Lead SIP for the entire State with the exception of this borough. When the State submits a revised control plan for USMR, EPA in another Federal Register notice will propose action on this specific part of the SIP.

At that time, the public will have an opportunity to comment on the State's submittal. However, if the State after reasonable time fails to provide the expected control plan, EPA will propose a federal strategy.

Today's action is being made effective immediately since the SIP revision being approved is already in effect and EPA's approval imposes no additional regulatory burden.

Under Executive Order 12291, today's action is not "Major." Because full approval is not being taken, today's action has been submitted to the Office of Management and Budget (OMB) for review.

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of

this action must be filed in the U.S. Court of Appeals for the appropriate circuit within 60 days of today. This action may not be challenged later in proceedings to enforce its requirements (See section 307(b)(2)).

#### List of Subjects in 40 CFR Part 52

Air pollution control, Lead, and Incorporated by references.

*Note.*—Incorporation by reference of the State Implementation Plan for the State of New Jersey was approved by the Director of the Federal Register on July 1, 1982.

Dated: October 31, 1986.

Lee M. Thomas,  
Administrator, Environmental Protection Agency.

#### PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

Title 40, Chapter I, Subchapter C, Part 52, Code of Federal Regulations is amended as follows:

##### Subpart FF—New Jersey

1. The authority citation for Part 52 continues to read as follows:

Authority: 42 U.S.C. 7401-7642.

2. Section 52.1570 paragraph (c) is amended by adding new paragraph (c)(38) as follows:

##### § 52.1570 Identification of plan.

\* \* \* \* \*

(c) \* \* \*

(38) The New Jersey State Implementation Plan for attainment and maintenance of the lead standards was submitted on May 1 and August 15, 1984, and on April 22, April 29, May 17, and July 16, 1985 by the New Jersey Department of Environmental Protection.

(i) Incorporated by reference:

(A) Revisions to N.J.A.C. 7:27-8, "Permits and Certificates," effective April 5, 1985.

(B) Revisions to N.J.A.C. 7:27-13, "Ambient Air Quality Standards," effective June 25, 1985.

(C) Revisions to N.J.A.C. 7:27-18, "Control and Prohibition of Air Pollution from New or Altered Sources Affecting Ambient Air Quality (Emission Offset Rule)," effective March 11, 1985.

(D) A July 16, 1985 letter from the Department of Environmental Protection; with attachment of letter dated July 15, 1985, contains schedules for revising N.J.A.C. 7:27-6, "Control and Prohibition of Particles from Manufacturing Process," to incorporate maximum allowable emission rates for lead and for adopting a new section,

N.J.A.C. 7:27-19, to govern the combustion of liquid fuels, if necessary.

(E) "RACT-plus studies" to determine strategies to eliminate violation of the lead standards in the vicinity of Heubach, Inc., Newark and Delco Remy, New Brunswick will be completed by November 1, 1985 and control measures will be selected by January 1986.

(ii) Additional material:

(A) Narrative submittal of the Lead SIP, including attainment demonstration, air quality data and summary of both current and projected lead emissions.

3. Section 52.1580 is amended by adding to the table the pollutant lead, "Pb," in a new last column and by adding a new footnote e. as follows (footnote a. is republished):

**§ 52.1580 Attainment dates for national standards.**

\* \* \* \* \*

Air quality control region and nonattainment area	Pollutant	
		Pb
New Jersey-New York-Connecticut Interstate AQCR:		
The City of Jersey City.....	a	
Remainder of Hudson County (excluding Jersey City).....	a	
The City of Newark (east of the Garden State Parkway).....	a	
The City of Newark (west of the Garden State Parkway).....	a	
The City of Elizabeth.....	a	
The City of Linden.....	a	
The Borough of Carteret.....	e	
The Township of Woodbridge.....	a	
The City of Perth Amboy.....	a	
The City of Paterson.....	a	
The City of Hackensack.....	a	
The Town of Morristown.....	a	
The Borough of Somerville.....	a	
The City of Asbury Park.....	a	
The Borough of Freehold.....	a	
Remainder of AQCR.....	a	
Metropolitan Philadelphia Interstate AQCR:		
The City of Camden.....	a	
The City of Trenton.....	a	
The City of Burlington.....	a	
The Borough of Penns Grove.....	a	
Remainder of AQCR.....	a	
New Jersey Intrastate AQCR:		
The City of Bridgeton.....	a	
The City of Atlantic City.....	a	
Toms River (portion of Dover Township).....	a	
Remainder of AQCR.....	a	
Northeast Pennsylvania-Upper Delaware Valley Interstate AQCR.....	a	

a. Air quality levels presently attain standards or area is unclassifiable.

e. Attainment date to be specified in future plan submittal.

4. Section 52.1605 is amended by revising the entries for Subchapter 8, 13 and 18 to the table as follows:

**§ 52.1605 EPA—approved New Jersey regulations.**

State regulation	State effective date	EPA approved date	Comments
Subchapter 8, "Permits and Certificates".	Apr. 5, 1985.....	Nov. 25, 1986, 51 FR 42573.	
Subchapter 13, "Ambient Air Quality Standards".	June 25, 1985.....	Nov. 25, 1986, 51 FR 42573.	
Subchapter 18, "Control and Prohibition of Air Pollution from New or Altered Sources Affecting Ambient Air Quality in Nonattainment Areas (Emission Offset Rule)" (except as noted regarding sections 18.1 and 18.2(e)(1)).	Sept. 8, 1980.....	Apr. 15, 1981, 46 FR 21996.	The definitions of "significant emission increase," in §§ 18.1, and 18.2(e)(1) are disapproved. Federally promulgated regulations (40 CFR 52.1578(c), published at 46 FR 21996 on Apr. 15, 1981) are applicable.
Subchapter 18, "Control and Prohibition of Air Pollution from New or Altered Sources Affecting Ambient Air Quality (Emission Offset Rule)".	Mar. 11, 1985.....	Nov. 25, 1986, 51 FR 42573.	The approval of this version of Subchapter 18 only relates to the review of major sources of lead and the review of significant increases of lead emissions at major sources.

[FR Doc. 86-25501 Filed 11-24-86; 8:45 am]

BILLING CODE 6580-50-M

**40 CFR Part 190**

[ANR FRL-3117-8]

**Denial of Petitions by the American Mining Congress Regarding Environmental Radiation Standards at Uranium Mills**

**AGENCY:** Environmental Protection Agency.

**ACTION:** Denial of petitions for reconsideration.

**SUMMARY:** This notice announces the Agency's decision to deny petitions of the American Mining Congress (AMC) regarding application of the environmental radiation standards at 40 CFR Part 190 to uranium mills.

**ADDRESSES:** Docket R-82-2 containing material relevant to this action is located in the U.S. Environmental Protection Agency (EPA), Central Docket Section, Room WSM-2903B, 401 M Street SW., Washington, DC 20460. The docket may be inspected between 8 a.m. and 4 p.m. on weekdays.

**FOR FURTHER INFORMATION CONTACT:** Allan C.B. Richardson, Office of Radiation Programs (ANR-460), U.S. Environmental Protection Agency, Washington, DC 20460, Telephone 202-475-9620.

**SUPPLEMENTARY INFORMATION:** In October 1980, the AMC petitioned EPA to reopen rulemaking proceedings for the purpose of reconsidering the Agency's environmental radiation standards for nuclear power operations (40 CFR Part 190) as they apply to uranium mills. The AMC further

requested EPA to stay the effective date of these standards at uranium mills pending consideration of its petition (hereinafter referred to as the Petition). The standards had been promulgated by EPA in January 1977 (42 FR 2858, January 13, 1977) and were to become effective at uranium mills in December 1980. In April 1981, EPA denied AMC's request for a stay, based on a preliminary finding that the request for reconsideration was not likely to be granted.

In July 1985, the AMC submitted an additional petition (hereinafter referred to as the Further Petition) to EPA citing additional reasons for reopening rulemaking proceedings.

The Petition is based on several assertions, which may be summarized as follows:

1. Important new information developed since the promulgation of 40 CFR Part 190 shows that the application of these standards to uranium mills is not cost-effective. This information requires EPA to revise these standards so that only cost-effective controls are required at uranium mills.

2. The health risks from uranium milling operations are quite small and do not support a need for the standards.

3. The rulemaking record was inadequate to support the standard of 25 millirem to the whole body or any organ (except the thyroid) of any member of the public.

The Further Petition contained additional assertions, which may be summarized as follows:

4. A subcommittee of EPA's Science Advisory Board reviewed the risk assessment methodology used for setting standards under the Clean Air Act and made significant criticism of EPA's assessments which are germane to reassessment of these standards:

5. The EPA relied on the radiation protection principle that exposures to radiation should be "as low as reasonably achievable" (ALARA). This reliance in a standard-setting process is incorrect. The EPA must also make a threshold finding of significant risk before it can issue health standards.

6. The EPA did not consider risk estimates developed by prestigious scientific groups in developing these radiation protection standards.

7. The results of a court case reveal that a 25 millirem dose (the value of one of the standards) is insignificant in terms of average exposure to natural background radiation.

8. The standards at 40 CFR Part 190 are inconsistent with principles of radiation protection recommended by National Council on Radiological Protection and Measurements (NCRP) and adopted by EPA in a related regulatory context. Also, these standards are inconsistent with the recommendations of the International Commission on Radiological Protection (ICRP).

The EPA has reviewed each of these contentions in detail. This review included a re-evaluation of risks and control technology costs. We have also considered the results of a comprehensive study by the Nuclear Regulatory Commission (NRC), the Generic Environmental Impact Statement on Uranium Milling (NRC80), and the results of recent NRC experience in implementing the 40 CFR Part 190 standards at uranium mills.

Based on this review, we have reached the following conclusions:

1. The petitions contain no new information related to risk assessment, the cost of emission control, or compliance assessment which warrants reopening the rulemaking proceedings. Without this standard, the dose to persons near uranium mills is estimated to be about 200 mrem/yr to the lung (from airborne particulates, primarily uranium from yellowcake drying operations), and about 300 mrem/yr to the bone (from windblown particulates from the tailings) (EPA79b). The EPA considers the level of risk from such doses to be significant and not minimal. A reanalysis confirms EPA's conclusion in 1977 that uranium mills can meet the 40 CFR Part 190 standards at reasonable cost. The EPA established the standards based on protection of both individuals and populations. The limit of 25 mrem/yr was chosen based on an analysis of effects on populations and on assuring that risk to individuals is limited (EPA76a).

Comparison of doses from various sources to background radiation may be

useful to set priorities for efforts to reduce their contributions to hazards to public health (to the extent that they are avoidable), but they are not useful for deciding the appropriate level of control for a specific source. That decision must be based upon the specifics peculiar to the type of source under consideration, as was done in the case of the standards at 40 CFR Part 190.

2. The petitions contain no new information regarding the rulemaking record which warrants reopening of the proceedings. The procedures used by EPA in setting the standards were reasonable and proper and we find no basis for the contention that the administrative record was inadequate to support the standards. The questions raised by the EPA's Science Advisory Board were adequately answered in an EPA publication entitled "Radionuclides, Response to Comments for Final Rules, Volume II" and do not change the conclusions of EPA's analysis. That analysis also included the recommendations of other scientific groups whenever they were applicable.

3. The limit proposed by NCRP is not a primary standard, but is incorporated as a variance to the Clean Air Act standards. Such variances may be granted by the Administrator of EPA if they are properly justified. However, in the case of uranium mills, the data collected since 40 CFR 190 was promulgated indicate that uranium mills can generally comply with the 40 CFR Part 190 standards without undue difficulty.

With respect to the use of ICRP recommendations for risk weighting factors, EPA calculated risk directly in its analysis, while ICRP's risk factors do so in the calculation of "effective dose." In either case, for analysis of risk, the results are comparable. EPA notes that the 40 CFR Part 190 standard is not exclusively a risk-based standard, but included other considerations that are independent of the choice of weighting factors. Therefore, it was not relevant whether or not the ICRP weighting factors were used in the analysis for the 40 CFR Part 190 standards.

The analysis supporting these conclusions is provided in a separate document entitled "Analysis of the American Mining Congress' Petitions for Reconsideration and Revision of 40 CFR Part 190 Standards and for Postponement of Effective Date." This analysis has been placed in the docket and a limited number of copies are available for distribution to the public upon request.

## Conclusion

For the reasons stated above, these petitions to reopen the rulemaking proceeding for the purpose of reconsidering 40 CFR Part 190 as it applies to uranium mills are denied. The previous denial of AMC's request for a stay of the effective date of these standards at uranium mills is reaffirmed.

Dated: November 13, 1986.

J. Craig Potter,

Assistant Administrator for Air and Radiation.

[FR Doc. 86-26514 Filed 11-24-86; 8:45 am]

BILLING CODE 6560-50-M

## FEDERAL EMERGENCY MANAGEMENT AGENCY

### 44 CFR PART 64

[Docket No. FEMA 67-37]

### National Flood Insurance; Suspension of Community Eligibility

AGENCY: Federal Emergency Management Agency, FEMA.

ACTION: Final rule.

**SUMMARY:** This rule lists communities, where the sale of flood insurance has been authorized under the National Flood Insurance Program (NFIP), that are suspended on the effective dates listed within this rule because of noncompliance with the floodplain management requirements of the program. If FEMA receives documentation that the community has adopted the required floodplain management measures prior to the effective suspension date given in this rule, the suspension will be withdrawn by publication in the *Federal Register*.

**EFFECTIVE DATES:** The third date ("Susp.") listed in the fourth column.

**FOR FURTHER INFORMATION CONTACT:** Frank H. Thomas, Assistant Administrator, Office of Loss Reduction, Federal Insurance Administration, (202) 646-2717, Federal Center Plaza, 500 C Street, Southwest, Room 416, Washington, DC 20472.

**SUPPLEMENTARY INFORMATION:** The National Flood Insurance Program (NFIP), enables property owners to purchase flood insurance at rates made reasonable through a Federal subsidy. In return, communities agree to adopt and administer local floodplain management measures aimed at protecting lives and new construction from future flooding. Section 1315 of the National Flood Insurance Act of 1968, as amended (42 U.S.C. 4022), prohibits flood insurance

coverage as authorized under the National Flood Insurance Program (42 U.S.C. 4001-4128) unless an appropriate public body shall have adopted adequate floodplain management measures with effective enforcement measures. The communities listed in this notice no longer meet that statutory requirement for compliance with program regulations (44 CFR Part 59 et seq.). Accordingly, the communities will be suspended on the effective date in the fourth column. As of that date, flood insurance will no longer be available in the community. However, some of these communities may adopt and submit the required documentation of legally enforceable floodplain management measures after this rule is published but prior to the actual suspension date. These communities will not be suspended and will continue their eligibility for the sale of insurance. A notice withdrawing the suspension of the communities will be published in the Federal Register. In the interim, if you wish to determine if a particular community was suspended on the suspension date, contact the appropriate FEMA Regional Office or the NFIP servicing contractor.

In addition, the Federal Emergency Management Agency has identified the special flood hazard areas in these communities by publishing a Flood Hazard Boundary Map. The date of the flood map, if one has been published, is

indicated in the third column of the table. No direct Federal financial assistance (except assistance pursuant to the Disaster Relief Act of 1974 not in connection with a flood) may legally be provided for construction or acquisition of buildings in the identified special flood hazard area of communities not participating in the NFIP and identified for more than a year, on the Federal Emergency Management Agency's initial flood insurance map of the community as having flood-prone areas. (Section 202(a) of the Flood Disaster Protection Act of 1973 (Pub. L. 93-234), as amended). This prohibition against certain types of Federal assistance becomes effective for the communities listed on the date shown in the last column.

The Administrator finds that notice and public procedure under 5 U.S.C. 553(b) are impracticable and unnecessary because communities listed in this final rule have been adequately notified. Each community receives a 6-month, 90-day, and 30-day notification addressed to the Chief Executive Officer that the community will be suspended unless the required floodplain management measures are met prior to the effective suspension date. For the same reasons, this final rule may take effect within less than 30 days.

Pursuant to the provision of 5 U.S.C. 605(b), the Administrator, Federal Insurance Administration, FEMA,

hereby certifies that this rule if promulgated will not have a significant economic impact on a substantial number of small entities. As stated in Section 2 of the Flood Disaster Protection Act of 1973, the establishment of local floodplain management together with the availability of flood insurance decreases the economic impact of future flood losses to both the particular community and the nation as a whole. This rule in and of itself does not have a significant economic impact. Any economic impact results from the community's decision not to (adopt) (enforce) adequate floodplain management, thus placing itself in noncompliance of the Federal standards required for community participation. In each entry, a complete chronology of effective dates appears for each listed community.

#### List of Subjects in 44 CFR Part 64

Flood insurance—floodplains.

#### PART 64—[AMENDED]

1. The authority citation for Part 64 continues to read as follows:

Authority: 42 U.S.C. 4001 et seq., Reorganization Plan No. 3 of 1978, E.O. 12127.

2. Section 64.6 is amended by adding in alphabetical sequence new entries to the table.

#### § 64.6 List of eligible communities.

State and location	Community No.	Effective dates of authorization/cancellation of sale of flood insurance in community	Special flood hazard areas identified	Date <sup>1</sup>
<b>Region I</b>				
Connecticut: Hartford, city of, Hartford County.	095080B	June 30, 1970, Emerg.; Apr. 28, 1972, Reg.; Dec. 4, 1986, Susp.....	July 1, 1970, July 1, 1974 Sept. 29, 1978, and Dec. 4, 1986.	Dec. 4, 1986.
<b>Region II</b>				
New York: Florida, village of, Orange County.	36061B	July 28, 1975, Emerg.; Dec. 4, 1986, Reg.; Dec. 4, 1986, Susp.....	Mar. 22, 1974, June. 11, 1976, and Dec. 4, 1986.	Do.
<b>Region IV</b>				
Kentucky: Clark County, unincorporated areas.	210278B	May 13, 1976, Emerg.; Dec. 4, 1986, Reg.; Dec. 4, 1986, Susp.....	Aug. 5, 1977 and Dec. 4, 1986.....	Do.
<b>Region V</b>				
Wisconsin: Gratiot, village of, Lafayette County.....	550229C	Mar. 16, 1976, Emerg.; Dec. 4, 1986, Reg.; Dec. 4, 1986, Susp.....	Jan. 16, 1974, May. 14, 1976, and Dec. 4, 1986.	Do.
Lafayette County, unincorporated areas.	550223B	Mar. 10, 1972, Emerg.; Sept. 15, 1978, Reg.; Dec. 4, 1986, Susp.....	Dec. 27, 1974, Sept. 15, 1978, and Dec. 4, 1986.	Do.
Belmont, village of, Lafayette County.....	550225B	July 25, 1975, Emerg.; Dec. 4, 1986, Reg.; Dec. 4, 1986, Susp.....	May 17, 1974, May 21, 1976 and Dec. 4, 1986.	Do.
<b>Region VII</b>				
Kansas: Andover, city of, Butler County.....	200383B	Feb. 7, 1977, Emerg.; Dec. 4, 1986, Reg.; Dec. 4, 1986, Susp.....	Aug. 6, 1976, Aug. 2, 1977 and Dec. 4, 1986.	Do.
<b>Region III—Minimal Conversions</b>				
Pennsylvania: Arona, borough of, Westmoreland County.	420871B	Apr. 9, 1976, Emerg.; Dec. 1, 1986, Reg.; Dec. 1, 1986, Susp.....	Aug. 9, 1974, May 7, 1976 and Dec. 1, 1986.	Do.
Gibson, township of, Susquehanna County.	422080A	Oct. 3, 1975, Emerg.; Dec. 1, 1986, Reg.; Dec. 1, 1986, Susp.....	Apr. 4, 1975 and Dec. 1, 1986.....	Do.
Gugan, township of, Clinton County.....	421539B	Apr. 6, 1977, Emerg.; Dec. 1, 1986, Reg.; Dec. 1, 1986, Susp.....	Nov. 8, 1974, July 23, 1976 and Dec. 1, 1986.	Do.
Chiopyle, borough of, Fayette County.....	421615B	Mar. 8, 1985, Emerg.; Dec. 1, 1986, Reg.; Dec. 1, 1986, Susp.....	Jan. 31, 1975, Mar. 19, 1976 and Dec. 1, 1986.	Do.
Otter Creek, township of, Mercer County.	422466A	June 2, 1976, Emerg.; Dec. 1, 1986, Reg.; Dec. 1, 1986, Susp.....	Jan. 31, 1975 and Dec. 1, 1986.....	Do.

<sup>1</sup> Certain Federal assistance no longer available in special flood hazard areas.

Code for reading third column: Emerg.—Emergency; Reg.—Regular; Susp.—Suspension.

Harold T. Duryee,

Administrator, Federal Insurance  
Administration.

[FR Doc. 86-26500 Filed 11-24-86; 8:45am]

BILLING CODE 6718-03-M

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 97

[PR Docket No. 86-63; FCC 86-429]

### Amateur Radio Service; Examination Credit for Written Elements

**AGENCY:** Federal Communications  
Commission.

**ACTION:** Final rules.

**SUMMARY:** This document adopts rules to allow re-examination credit for written elements passed during a previous amateur operator examination. These rules are being adopted in order to allow volunteer-examiner coordinators and volunteer examiners greater latitude, and to give applicants additional examination opportunities.

**EFFECTIVE DATE:** December 1, 1986, subject to Office of Management and Budget approval of associated changes to FCC Form 610.

**ADDRESS:** Federal Communications  
Commission, 1919 M Street NW.,  
Washington, DC 20554.

**FOR FURTHER INFORMATION CONTACT:**  
John J. Borkowski, Special Services  
Division, Private Radio Bureau, (202)  
632-4964.

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission's Report and Order, PR Docket No. 86-63, adopted October 6, 1986, and released November 7, 1986.

The full text of the Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractors, International Transcript Services, (202) 857-3800, 2100 M Street NW., Suite 140, Washington, DC., 20037.

#### Summary of Report and Order

In the *Notice of Proposed Rule Making* in this proceeding, 51 FR 6446, February 24, 1986, the Commission proposed rules to allow re-examination credit for written elements passed during an otherwise unsuccessful amateur operator examination. This *Report and Order* adopts rules which effectuate the proposal.

Until these rules were adopted, credit could only be given for telegraphy examination elements. Adoption of these rules provides volunteer-examiner coordinators (VEC's) and volunteer examiners (VE's) greater latitude. It also permits an applicant to take a written element before a telegraphy element.

Amateur service rules were amended to clarify that Novice system VE's are not required to issue a Certificate of Successful Completion of Examination (CSCE) upon an applicant's successful completion of Elements 1(A) or 2. Instead, an applicant may now receive examination credits for Elements 1(A) and 2 from the administering VE's by producing a photocopy of a pending application which indicates the person has qualified for a Novice operator license.

A newly filled out FCC Form 610 will still be required each time a person takes an amateur operator examination. If the examination results in eligibility for a new or upgraded license, administering VE's and the coordinating VEC review and forward the application.

The FCC held that since the CSCE is a valid document for telegraphy element credit, it should prove equally valid for written element credit. Suggestions that the CSCE should be altered to prevent possible misuse were rejected. The FCC said it had no substantial evidence of any significant misuse of the CSCE's for telegraphy element credit.

The rules adopted herein require modification of FCC Form 610. Specifically, they require new VE certifications and new instructions to applicants and VE's in Section II. These rule changes have been analyzed with respect to the Paperwork Reduction Act of 1980 and found to impose a new or modified information collection requirement on the public. Implementation of any new or modified requirement will be subject to approval by the Office of Management and Budget as prescribed by the Act. A copy of the modified FCC Form 610 we are adopting has been placed in the docket file associated with this proceeding. It is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street NW. Washington, DC.

In accordance with section 605 of the Regulatory Flexibility Act of 1980 (5 U.S.C. 605), we certify that these rule changes will not have a significant economic impact on a substantial number of small entities, because these entities may not use the Amateur service for commercial radio communications. (See 47 CFR 97.3(b)).

### Ordering Clauses

Accordingly, IT IS ORDERED that under the authority contained in sections 4(i) and 303(r) of the Communications Act of 1934, as amended (47 U.S.C. 154(i) and 303(r)), Part 97 of the Commission's rules is amended as set forth below. These rule changes are effective December 1, 1986, contingent upon Office of Management and Budget approval of the changes to FCC Form 610 also adopted herein.

It is further ordered, subject to the approval of the Office of Management and Budget, that FCC Form 610 is revised as set forth in the docket file associated with this proceeding.

#### List of Subjects in 47 Part 97

Amateur radio; Examinations.

The collection of information requirement contained in these rule changes has been submitted to OMB for review under section 3504(h) of the Paperwork Reduction Act. Persons wishing to comment on this collection of information requirement should direct their comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, Attention: Desk Officer for Federal Communications Commission.

William J. Tricarico,  
Secretary.

Part 97 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

#### PART 97—AMATEUR RADIO SERVICE

1. The authority citation for Part 97 continues to read:

**Authority:** 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303. Interpret or apply 48 Stat. 1064-1068, 1081-1105, as amended; 47 U.S.C. 151-155, 301-609, unless otherwise noted.

2. Paragraph (b) of § 97.25 is revised to read:

#### § 97.25 Examination credit.

\* \* \* \* \*

(b) Upon presentation of a certificate of successful completion of an examination (see § 97.28(e)) for any examination element examiners shall give applicants for amateur radio operator licenses examination credit for any element that has been successfully completed within the previous 365 days. Examiners shall give applicants credit for Elements 1(A) or 2 upon presentation of a photocopy of FCC Form 610 which has been submitted to the FCC indicating the applicant has qualified for

the Novice operator license within the previous 365 days.

3. Paragraph (e) of § 97.28 is revised to read:

**§ 97.28 Examination administration.**

(e) A certificate of successful completion of an examination will be issued by the examiners to an applicant who successfully completes an examination element coordinated by a VEC under Subpart I. A certificate is valid for a period of 365 days from the date of its issuance.

[FR Doc. 86-26485 Filed 11-24-86; 8:45 am]

BILLING CODE 6712-01-M

## DEPARTMENT OF TRANSPORTATION

### National Highway Traffic Safety Administration

#### 49 CFR Part 541

[Docket No. T84-01; Notice 11]

#### Final Listing of High Theft Lines for 1987 Model Year; Motor Vehicle Theft Prevention Standard

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

**ACTION:** Final rule; technical amendment.

**SUMMARY:** This agency has completed all of its actions for determining which carlines will be subject to the marking requirements of the motor vehicle theft prevention standard for the 1987 model year. NHTSA has previously published a listing of those carlines which were selected as high theft carlines beginning with the 1987 model year. However, some of the carlines selected as high theft lines are nevertheless *not* subject to the theft prevention standard for the 1987 model year. Three 1987 lines selected as high theft lines are not subject to the theft prevention standard because they were introduced into commerce before the effective date of the theft prevention standard (April 24, 1986). Twelve carlines have received exemptions from complying with the requirements of the theft prevention standard because they have standard equipment anti-theft devices. This final listing is intended to inform the public, particularly law enforcement groups, of the carlines that are subject to the marking requirements of the theft prevention standard for the 1987 model year.

**EFFECTIVE DATE:** This listing becomes effective November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:**

Mr. Brian McLaughlin, Office of Market Incentives, NHTSA, 400 Seventh Street SW., Washington, DC 20590 (202-366-4808).

**SUPPLEMENTARY INFORMATION:** On October 24, 1985, NHTSA published a new Part 541, *Federal Motor Vehicle Theft Prevention Standard*; 50 FR 43166. Part 541 sets forth performance requirements for inscribing or affixing identification numbers into or onto covered original equipment major parts, and the replacement parts for those original equipment parts, on all vehicles in lines selected as high theft lines.

Section 603(a)(2) of the Motor Vehicle Information and Cost Savings Act (15 U.S.C. 2023(a)(2); hereinafter "the Cost Savings Act") specifies that NHTSA shall select the high theft lines with the agreement of the manufacturer, if possible. Accordingly, on April 8, 1986, this agency published a listing of those lines selected as high theft lines beginning with the 1987 model year; 51 FR 11919. However, that notice stated that there were two possible circumstances in which a carline listed in the notice would not be required to be marked in accordance with the theft prevention standard for the 1987 model year.

First, three of the high theft lines had 1987 models introduced into commerce before April 24, 1986, the effective date for Part 541. For the purposes of Title VI of the Cost Savings Act, a line's model year begins on the day on which a vehicle in that line is introduced into commerce in the United States. The legislative history of Title VI states, "The [theft prevention] standard cannot apply to a car in the middle of the model year." H.R. Rep. No. 1087, 98th Cong., 2d Sess., at 11 (1984). Accordingly, this agency has concluded that if a 1987 model year version of a carline selected as a high theft line was introduced into commerce before the effective date of Part 541, it is not subject to the requirements of Part 541 during the 1987 model year. Such lines will, however, be subject to Part 541 beginning in the 1988 model year.

Second, section 605 of the Cost Savings Act (15 U.S.C. 2025) provides that a manufacturer may petition to have a high theft line exempted from the requirements of Part 541, if the line is equipped as standard equipment with an anti-theft device. The exemption is granted if NHTSA determines that the standard equipment anti-theft device is likely to be as effective as compliance with Part 541 in reducing and deterring

motor vehicle thefts. NHTSA has exempted twelve high theft lines under this statutory provision.

This revised listing is intended to inform the public, particularly law enforcement groups, of which carlines are subject to the marking requirements of the theft prevention standard for the 1987 model year. This listing does not add any more lines to the group listed in the April 8, 1986 notice as subject to Part 541. It does, however, delete some lines from that listing. Since such deletions do not impose any additional obligations on any party, but instead relieve some manufacturers from compliance with Part 541, NHTSA finds for good cause that this notice should be effective as soon as it is published in the *Federal Register*.

NHTSA also finds for good cause that notice and opportunity for comment on this listing are unnecessary. All of the lines listed herein have already been selected as high theft lines in accordance with the criteria set forth in Title VI of the Cost Savings Act. Further, all of the lines exempted from Part 541 were exempted in accordance with Title VI. Public comment on the selections and exemptions is not contemplated by Title VI, and is unnecessary after the selections and exemptions have been made in accordance with the statutory criteria.

#### *Regulatory Impacts.*

NHTSA has determined that this rule deleting some previously listed lines from the listing of those subject to the requirements of the vehicle theft prevention standard is neither "major" within the meaning of Executive Order 12291 nor "significant" within the meaning of the Department of Transportation regulatory policies and procedures. As noted above, the deletions have all been made in accordance with the provisions of the Cost Savings Act, and the manufacturers of the deleted lines have already been informed that those lines are not subject to the requirements of Part 541 for the 1987 model year. This listing does not actually exempt lines from the requirements of Part 541; it only informs the general public of such exemptions. Since the only purpose of this final listing is to inform the public of prior final agency action for the 1987 model year, a full regulatory evaluation has not been prepared.

The agency has also considered the effects of this listing under the Regulatory Flexibility Act. I hereby certify that this rule will not have a significant economic impact on a substantial number of small entities. As

noted above, the effect of this notice is simply to inform the public of those lines that will be subject to the requirements of Part 541 for the 1987 model year. The agency believes this information will not have any economic impact on small entities.

Finally, the agency has considered the environmental impacts of this rule, in accordance with the National Environmental Policy Act, and determined that it will not have any significant impact on the quality of the human environment.

#### List of Subjects in 49 CFR Part 541

Administrative practice and procedure, Labeling, Motor vehicles, Reporting and recordkeeping requirements.

#### PART 541—[AMENDED]

In consideration of the foregoing, 49 CFR Part 541 is amended as follows:

1. The authority citation for Part 541 continues to read as follows:

Authority: 15 U.S.C. 2021–2024, and 2026; delegation of authority at 49 CFR 1.50.

2. Appendix A of Part 541 is revised and Appendices A-I and A-II are added to read as follows:

#### Appendix A—Lines Subject to the Requirements of this Standard.

Manufacturer	Subject lines
BMW .....	3—Carlisle. 5—Carlisle. 6—Carlisle. 7—Carlisle.
Chrysler .....	Chrysler Executive Sedan/Limousine. Chrysler Fifth Avenue/Newport. Chrysler Laser. Chrysler LeBaron/Town & Country. Chrysler LeBaron GTS.

Manufacturer	Subject lines
	Dodge Aries. Dodge Daytona. Dodge Diplomat. Dodge Lancer. Dodge 600. Plymouth Caravelle. Plymouth Gran Fury. Plymouth Reliant. "Q" Car. Mondial 8. 308. 328.
Ferrari .....	
Ford .....	Ford Mustang. Ford Thunderbird. Mercury Capri. Mercury Cougar. Lincoln Continental. Lincoln Mark. Lincoln Town Car. Merkur Scorpio. Merkur XR4Ti.
General Motors .....	Buick Electra. Buick LeSabre. Buick Riviera. Cadillac DeVille. Cadillac Eldorado. Cadillac Seville. Chevrolet Camaro. Chevrolet Nova. Oldsmobile Delta 88. Oldsmobile 98. Oldsmobile Toronado. Pontiac Bonneville. Pontiac Fiero. Pontiac Firebird. Acura Legend.
Honda .....	XJ.
Jaguar .....	XJ-6. XJ-40.
Maserati .....	Biturbo.
Mazda .....	Quattroporte. GLC. 626.
Mercedes-Benz .....	190 D/E. 260 E. 300 D/E. 300 TD. 300 SDL. 380 SEC/500 SEC. 380 SEL/500 SEL. 380 SL. 420 SEL. 560 SEL. 560 SEC. 560 SL.
Mitsubishi .....	Cordia. Tredia.
Porsche .....	911. 928. SSI.
Reliant .....	SSI.
Saab .....	900.

Manufacturer	Subject lines
Subaru .....	9000.
Toyota .....	XT. Camry. Celica. Corolla/Corolla Sport. MR2. Starlet.
Volkswagen .....	Audi Quattro. Volkswagen Cabriolet. Volkswagen Rabbit. Volkswagen Scirocco.

#### Appendix A-I—1987 Lines Introduced Into Commerce Before April 24, 1986, Which Are Not Subject to the Requirements of This Standard Until the 1988 Model Year

Manufacturer	Line
Alfa Romeo .....	Milano 161.
Mazda .....	RX-7.
Porsche .....	924S.

#### Appendix A-II—Lines Exempted from the Requirements of this Standard Pursuant to 49 CFR Part 543

Manufacturer	Exempted lines
Austin Rover .....	Sterling
Chrysler .....	Chrysler Conquest
General Motors .....	Cadillac Allante Chevrolet Corvette
Isuzu .....	Impulse
Mitsubishi .....	Galant Starion
Nissan .....	Maxima 300 ZX
Toyota .....	Celica Supra Cressida
Volkswagen .....	Audi 5000S

Issued on November 20, 1986.

Diane K. Steed,

Administrator.

[FR Doc. 86-26479 Filed 11-24-86; 8:45 am]

BILLING CODE 4910-59-M

# Proposed Rules

Federal Register

Vol. 51, No. 227

Tuesday, November 25, 1986

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF AGRICULTURE

### Agricultural Marketing Service

#### 7 CFR Part 1036

[Docket Nos. AO-179-A49 and AO-179-A49-RO1]

#### Milk in the Eastern Ohio-Western Pennsylvania Marketing Area; Decision on Proposed Amendments to Tentative Marketing Agreement and to Order

**AGENCY:** Agricultural Marketing Service, USDA.

**ACTION:** Proposed rule.

**SUMMARY:** This decision adopts certain changes in the plant location pricing structure of the Eastern Ohio-Western Pennsylvania milk order based on industry proposals considered at a public hearing held August 7-8, 1985 and on testimony presented at a reopened hearing held March 12-14, 1986. It would establish a single Class I price differential throughout the marketing area and within Pennsylvania at the present Zone 2 price level. The changes are needed to reflect current marketing conditions and to assure orderly marketing in the area. A referendum will be conducted to determine whether producers who supplied milk during May 1986 favor the issuance of the order.

#### FOR FURTHER INFORMATION CONTACT:

Maurice M. Martin, Marketing Specialist, Dairy Division, Agricultural Marketing Service, United States Department of Agriculture, Washington, DC 20250, (202) 447-7311.

**SUPPLEMENTARY INFORMATION:** This administrative action is governed by the provisions of sections 556 and 557 of Title 5 of the United States Code and, therefore, is excluded from the requirements of Executive Order 12291.

The Regulatory Flexibility Act (5 U.S.C. 601-612) requires the Agency to examine the impact of a proposed rule on small entities. Pursuant to 5 U.S.C. 605(b), the Administrator of the

Agricultural Marketing Service has certified that this action will not have a significant economic impact on a substantial number of small entities. The proposed amendments modify the plant location pricing structure of the order to make it conform more closely to current economic conditions that exist in the marketplace. The principal changed marketing condition involves the location of the market's milk producers in relation to where a majority of the milk is processed for the market. Reflection of this and other changed marketing conditions through amendments proposed herein will not result in a significant added price impact on regulated handlers. In fact, approximately 88 percent of the Class I milk, delivered to 23 of the 28 distributing plants on the market, will be in a situation of no difference or a negative difference in handler fluid milk cost.

Prior Documents in this proceeding:

*Notice of Hearing:* Issued July 19, 1985; published July 24, 1985 (50 FR 30204).

*Suspension Order:* Issued September 4, 1985; published September 10, 1985 (50 FR 36865).

*Partial Recommended Decision:* Issued February 14, 1986; published February 21, 1986 (51 FR 6245).

*Notice of Reopened Hearing:* Issued February 14, 1986; published February 21, 1986 (51 FR 6241).

*Partial Final Decision:* Issued July 24, 1986; published July 30, 1986 (51 FR 27178).

*Final Order:* Issued August 19, 1986; published August 26, 1986 (51 FR 30325).

*Recommended Decision:* Issued September 12, 1986; published September 19, 1986 (51 FR 33273).

#### Preliminary Statement

Public hearings were held upon proposed amendments to the marketing agreement and the order regulating the handling of milk in the Eastern Ohio-Western Pennsylvania marketing area. The hearings were held pursuant to the provisions of the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601 *et seq.*), and the applicable rules of practice and procedure governing the formulation of marketing agreements and marketing orders (7 CFR Part 900), at Strongsville, Ohio, on August 7-8, 1985, pursuant to a notice of hearing issued July 19, 1985 (50 FR

30204) and at Indianapolis, Indiana, on March 12-14, 1986, pursuant to a notice of hearing issued February 14, 1986 (51 FR 6241).

Upon the basis of the evidence introduced at the hearing and the record thereof, the Deputy Administrator, Marketing Programs, on September 12, 1986, filed with the Hearing Clerk, United States Department of Agriculture, a recommended decision containing notice of the opportunity to file written exceptions thereto.

The material issues, findings and conclusions, rulings and general findings of the recommended decision are hereby approved and adopted and are set forth in full herein, except that a new paragraph has been added at the end of issue 3.

The material issues on the records of hearings relate to:

1. Pool plant qualifications.
2. Diversions to nonpool plants.
3. Location adjustments.

This decision deals only with issue 3. The other issues, 1 and 2, were dealt with in a previous decision.

#### Findings and Conclusions

##### Background Statement

Since the time that this proceeding originated (Notice of hearing issued July 19, 1985; published July 24, 1985 (50 FR 30204)), the Congress enacted the Food Security Act of 1985 (Pub. L. 99-198), which, among other things, mandated increases in the Class I differentials of 35 Federal milk orders including the Eastern Ohio-Western Pennsylvania order. These increases became effective May 1, 1986. At that time, the Class I differential for the Eastern Ohio-Western Pennsylvania milk order increased 10 cents per hundredweight. In light of this, the proceeding on proposed amendments to change the location adjustment provisions of the Eastern Ohio-Western Pennsylvania order was reopened (Notice issued February 14, 1986; published February 21, 1986 (51 FR 6241)) at the request of proponent Milk Marketing, Inc. (MMI).

At the reopened hearing in Indianapolis, Indiana, MMI reiterated its support of the proposal for a single Class I price throughout the order's marketing area. However, the primary purpose of MMI's testimony at this hearing was to point out that the 10-cent increase in the Class I differential

mandated for Zone 1 should likewise apply to its initial proposal. As revised at the reopened hearing, MMI proposed that the Class I differential throughout the marketing area and at plants located in Pennsylvania should be \$2.00.

3. *Location Adjustments.* The order's location pricing structure should be revised to eliminate the pricing zones within the marketing area and to modify the application of location adjustments at plants located outside the marketing area. As adopted, a single Class I price differential of \$2.00 would apply at all plants in the marketing area and at plants located outside the marketing area within Pennsylvania.

Currently, the marketing area is divided into four pricing zones; namely, Zones 1, 2, 3, and 4. Zone 1 includes the Ohio counties of Ashland, Ashtabula, Carroll, Geauga, Guernsey (only the townships of Londonderry, Millwood, and Oxford), Harrison, Holmes, Monroe, Portage, Stark (Sugar Creek Township only), Trumbull (only the townships of Bazetta, Bloomfield, Bristol, Champion, Farmington, Fowler, Greene, Gustavus, Hartford, Johnston, Kinsman, Mecca, Mesopotamia, Southington, and Vernon), Tuscarawas, and Wayne; and the Pennsylvania counties of Clarion (the townships of Ashland, Beaver, Licking, Madison, Perry, Piney, Richland, Salem, and Toby only), Crawford, Erie, and Venango. Zone 2 includes the Ohio counties of Belmont, Columbiana, Jefferson, Lorain, Mahoning, Medina, Stark (except Sugar Creek Township), Summit, and Trumbull (the townships of Braceville, Brookfield, Howland, Hubbard, Liberty, Lordstown, Newton, Vienna, Warren, and Weathersfield only); the Pennsylvania counties of Armstrong, Beaver, Butler, Fayette, Greene, Lawrence, Mercer, Washington, and Westmoreland (except the boroughs of Bolivar, Donegal, Ligonier, New Florence, and Seward and the townships of Cook, Donegal, Fairfield, Ligonier, and St. Clair); and the West Virginia counties of Barbour, Brooke, Doddridge, Hancock, Harrison, Lewis, Marion, Marshall, Monongalia, Ohio, Preston, Randolph, Taylor, Tucker, Tyler, Upshur, and Wetzel. Zone 3 includes the Ohio counties of Cuyahoga and Lake (Cleveland metropolitan area), and Zone 4 includes the Pennsylvania county of Allegheny (Pittsburgh metropolitan area).

Under the present order, the Class I prices applicable to milk received at plants in Zones 2, 3, and 4 are 5 cents, 8 cents, and 10 cents more, respectively, than the Zone 1 price, which is \$1.95 over the basic formula price for the second preceding month. At a plant

outside the marketing area, the Class I price is that applicable at the nearest of certain cities to such plant (Canton and Cleveland, Ohio; Erie, Pittsburgh, and Uniontown, Pennsylvania; and Clarksburg, West Virginia), reduced at a rate of 1.5 cents for each 10 miles or fraction thereof that such plant is located from the city hall of the nearest city. The uniform price to producers whose milk is delivered to plants in the respective zones or to plants where location adjustments apply is adjusted in the same amount as the Class I price.

MMI proposed eliminating the present four pricing zones and establishing a single Class I price differential of \$2.00 to be applicable at plants in the marketing area and at plants located outside the marketing area in Pennsylvania. The proponent cooperative stated that the current zones and location differentials were established in 1972 as incentives to attract milk from the principal milk production areas to bottling plants which at that time were located in the market's main population centers of Pittsburgh, Pennsylvania and Cleveland, Ohio. The proponent's spokesman emphasized that since the implementation of the four pricing zones, changes in market conditions have occurred. Specifically, he indicated there has been a decrease in the number of pool distributing plants in the major population centers which has resulted in a reduction in the need for producer milk receipts in these areas. Because adequate supplies of fluid milk can now be obtained from producers who are located nearby to fluid plants, MMI contends that the plant location pricing incentives are no longer needed to move milk from where it is produced to where it is needed. The cooperative's spokesman added that its proposal would not result in any significant change in the total value of Class I milk in the pool.

A second witness speaking for MMI stated that the present market situation is characterized by fewer distributing plants that have distribution areas which go beyond zone borders. Because of zone pricing, handlers who compete for sales in the same areas pay unequal amounts for their raw product. Thus, he stressed that adoption of MMI's proposal is the only remedy available to prevent unfair competition that can occur from unequal product pricing brought on by zone pricing.

A spokesman for National Farmers Organization (NFO) supported proponent's proposal. He stated that adopting a single Class I differential throughout the marketing area will

increase returns to many producers who supply milk to the market.

A representative of a small cooperative in the market, Tri-County Producers Cooperative (Tri-County), likewise supported MMI's proposal for a single Class I price throughout the order's marketing area and in Pennsylvania. However, he requested that the Class I differential be \$2.25 in order to encourage producers to continue to produce for the Grade A market.

A producer who presently ships to a distributing plant located in Zone 3 opposed any change in the present location pricing structure. He stated that the present pricing zone system is a more equitable way to pay producers because it tends to offset the higher hauling rates to the major population centers. He also contended that many small dairy farmers would suffer drops in income if zone pricing were eliminated.

A witness testifying on behalf of a handler who operates a pool distributing plant in Zone 1, Meadow Brook Dairy, objected to changing the present location pricing structure as proposed by the cooperative. The principal basis for the handler's objection is that the Class I price for plants in Zone 1 would be increased 5 cents while the Class I price for competing plant operators in Zone 2 would remain the same. This in turn, the witness claimed, would adversely change the handler's competitive position for Class I sales with Zone 2 handlers.

The entire location pricing structure of the order was last reviewed at a public hearing held in January 1972. The redefining of the zones and changes in the rates applicable in each zone resulting from that proceeding became effective on January 1, 1973 and have remained in effect continuously since then. The basis of their adoption is set forth in the findings of the Assistant Secretary in his decision of November 3, 1972 (37 FR 23782), official notice of which is taken.

In his decision at that time, the Assistant Secretary concluded that, "Greater monetary incentive is needed if producers, responding to the minimum prices established by the order, are to deliver adequate quantities of milk to plants in these population centers<sup>1</sup> when alternative plant outlets nearer their farms are available. A producer whose farm is nearer to a secondary population center in the marketing area than to Pittsburgh or Cleveland

<sup>1</sup> Refers to the market's major population centers of Pittsburgh and Cleveland.

frequently can achieve a better net return, after paying hauling cost, by shipping to the secondary market. This has been particularly true with the price realized for milk delivered to any other point in the marketing area, except the Pittsburgh district where a 10-cent higher price has applied."

When the present location price structure became effective January 1, 1973, most of the market's fluid milk processing plants were located in or near urban population centers, and substantial quantities of milk were needed there, more than what was produced locally. Therefore, price incentives were provided to attract milk from the rural production areas to the milk deficient urban demand centers. Because a higher value was placed on milk in urban areas in order to attract adequate milk supplies, producers and supply plant operators shipped milk to urban fluid operations and received better net returns than what they would have received if one price applied throughout the market area (i.e. flat pricing). Otherwise, because most fluid milk is shipped directly from farms to distributing plants, the distant producers would have shipped milk to outlets nearest their own localities.

The record clearly demonstrates that a shift in the location of distributing plants has occurred since the 1972 hearing. Today, most of the market's distributing plants are no longer located in the urban population centers. Rather, the urban population centers are being served by fluid bottlers who are located nearer to their sources of milk. Consequently, bulk milk now does not have to move the longer distances to urban areas. Those fluid plants that remain in urban areas are able to obtain sufficient milk supplies from nearby producers, for whom the urban distributing plants offer them the best market for their milk with or without the 5 cent, 8 cent, or 10 cent added location value.

Zones 3 and 4 (the Cleveland and Pittsburgh areas), although still the leading population centers of the market, are no longer significant fluid milk processing centers. In December 1974, 2.3 million pounds of milk daily or 40 percent of total producer milk used in Class I that month was needed by Zone 3 and 4 fluid plants (1.2 million pounds and 1.1 million pounds respectively). However, in December 1985, only 1.0 million pounds of milk daily or 18 percent of total producer milk used in Class I that month was needed (0.7 million pounds in Zone 3 and 0.3 million pounds in Zone 4). This amount could have been supplied totally by nearby

producers. The producers in the Ohio counties of Cuyahoga and Lake and their surrounding counties of Ashtabula, Geauga, Lorain, Medina, Portage, and Summit produced 1.2 million pounds daily in December 1985, and the producers in Allegheny County, Pennsylvania and its surrounding counties of Armstrong, Beaver, Butler, Washington, and Westmoreland produced 1.0 million pounds daily. In total, the local producers produced 2.2 million pounds of milk daily in December 1985, which well exceeded the 1.0 million pound daily Class I needs of the Zone 3 and 4 fluid handlers.

Presently, Zone 2 distributing plants process the overwhelming majority of Class I milk priced under the order. In fact, almost the entire decrease in the proportion of total Class I milk processed in Zones 3 and 4 since December 1974 (22 percent) has translated into the increase in the proportion of total Class I milk processed in Zone 2 since that time (20 percent).

Similar to Zone 3 and 4 fluid handlers, the needs of the Zone 2 fluid processors can be met by local producers. In December 1985, the amount of milk processed by fluid handlers located in the present Zone 2 and in Cambria County, Pennsylvania, was 120.4 million pounds. In this same month, producers located in Zone 2 and in the adjacent out-of-area counties of Bedford, Blair, Cambria, Centre, Clearfield, Indiana, Jefferson, and Somerset, Pennsylvania; Garrett, Maryland; and Erie and Huron, Ohio, produced 156.1 million pounds.

The needs of the Class I handlers in Zone 1 also were met by local producers' production. In December 1985, the total supply of 137.6 million pounds from Zone 1 producers far surpassed the Class I demands, which were 20.4 million pounds.

The record clearly demonstrates that the Class I needs of fluid handlers are now more than adequately met by locally-produced milk. Because milk does not have to be transported long distances to meet the needs of urban fluid bottlers, there is no longer a need to provide price incentives to attract sufficient supplies of milk for metropolitan-based distributing plants. Producers who supply the Zone 1 distributing plants move their milk supplies no less a distance than those who supply the plants in Zones 2, 3, or 4. Therefore, it is impractical and unnecessary to provide location adjustments at plant locations in the marketing area or at Pennsylvania plant locations outside the marketing area.

Another point that must be addressed concerns the alternative outlets of producers. A rationale used to implement zone pricing in 1972 was that producers and supply plant operators must be compensated through the use of zone differentials or they would choose not to ship their milk to the urban fluid plants. Therefore, the value of milk increased as milk moved from Zone 1 to and through Zones 2, 3, and 4 to reflect the cost of transportation. Presently, as indicated earlier in this decision, the demands of fluid operators in all zones can be adequately met by nearby producers. No alternative now exists for producers, that is, they supply the closest distributing plant because distant plants no longer need supplemental supplies.

The changes adopted herein will provide a better pattern of inter-order price alignment. For example, establishing a Class I price differential level 5 cents higher than that now applicable at Zone 1 plants in Ohio is needed to maintain alignment with prices in the Ohio Valley milkshed (\$2.00 vs. \$2.04). The 5-cent higher price for plants in the Pennsylvania segment of Zone 1 will result in a pricing pattern which will minimize price differences at plants located near each other and will be more representative of competitive alternative market prices than the present order prices for the area.

Eliminating zone pricing and establishing a single Class I differential of \$2.00 throughout the marketing area and within Pennsylvania will bring about more orderly and more equitable marketing. A slight gain in total returns will be realized by producers in the aggregate. On an individual basis, producers whose milk is marketed by plants in Zone 1 will receive about 4 cents more per hundredweight than what they now receive. However, producers associated with plants in Zones 2, 3, and 4 will receive, respectively, about 1, 4, and 6 cents less than what they presently receive.

Conversely, handlers will all be paying equal amounts for Class I milk. Compared with current raw product costs, Zone 1 handlers will be paying 5 cents more per hundredweight, while Zone 3 and 4 handlers will be paying 3 cents and 5 cents less per hundredweight respectively. The raw product cost in Zone 2 will remain the same. Because the proposed Class I differential of \$2.00 already applies to almost three-fourths (70 percent in December 1985) of Class I producer milk, such relative changes for producers and handlers should not impact the market's supply situation.

Also, because approximately 73 percent of producer milk is now priced at plus 5 cents or more, a differential of \$2.00 must be maintained. Only about 27 percent of producer milk is priced at the present base price (Zone 1 price). Therefore, it would be appropriate to adopt the present Zone 2 price for Class 1 milk in the marketing area and at all plants located outside the marketing area within Pennsylvania.

Extending the area in which no location adjustments would apply to plants located outside of the marketing area within Pennsylvania, as adopted herein, will improve somewhat the price alignment among Order 36, Order 4, and local nearby unregulated handlers competing for milk supplies, particularly, in the Pennsylvania counties of Bedford, Cambria and Somerset. This is an area of relatively heavy milk production from which these handlers regularly compete for milk supplies. Thus, the higher price proposed for this area will result in a closer relationship of prices between the only pool plant located in the area at Johnstown, Pennsylvania, with other handlers competing for milk supplies. It will result in a more realistic inter-market alignment of prices in the general area.

In a post-hearing brief, the Johnstown pool handler objected to the proposed elimination of the location adjustment at his plant location because it would result in a net increase in milk costs. The brief was general in nature on this particular point and did not indicate with any specificity in terms of the record evidence why the proposed change should not be adopted.

As indicated elsewhere, the Erie, Pennsylvania handler opposed the proposed price increase for Zone 1, contending that plenty of milk is readily available at present prices and the proposed 5-cent increase would only serve to develop increased supplies of milk. In view of the current level of prices paid to producers in the area where the Erie handler procures milk, the nominal increase of about 4 cents in the Zone 1 blend price will not appreciably affect the supply of producer milk for the market.

Additionally, this handler claimed that the proposed price increase would adversely affect its competitive position for Class 1 milk sales with other handlers in the market. However, the record evidence does not demonstrate that the proposed price increase is such as to impede sales of Class 1 milk by the Erie handler in the market.

An exception to the recommended decision was filed by the dairy producer who had testified against the

elimination of zone pricing at the hearing in Strongsville, Ohio. His exception, which reiterated the points made in his testimony, provided no basis to warrant not revising the plant location pricing structure of the order and is thus denied.

#### **Rulings on Proposed Findings and Conclusions**

Briefs and proposed findings and conclusions were filed on behalf of certain interested parties. The briefs, proposed findings and conclusions, and the evidence in the record were considered in making the findings and conclusions set forth above. To the extent that the suggested findings and conclusions filed by interested parties are inconsistent with the findings and conclusions set forth herein, the requests to make such findings or reach such conclusions are denied for the reasons previously stated in this decision.

#### **General Findings**

The findings and determinations hereinafter set forth supplement those that were made when the Eastern Ohio-Western Pennsylvania order was first issued and when it was amended. The previous findings and determinations are hereby ratified and confirmed, except where they may conflict with those set forth herein.

(a) The tentative marketing agreement and the order, as hereby proposed to be amended, and all of the terms and conditions thereof, will tend to effectuate the declared policy of the Act;

(b) The parity prices of milk as determined pursuant to section 2 of the Act are not reasonable in view of the price of feeds, available supplies of feeds, and other economic conditions which affect market supply and demand for milk in the marketing area, and the minimum prices specified in the tentative marketing agreement and the order, as hereby proposed to be amended, are such prices as will reflect the aforesaid factors, insure a sufficient quantity of pure and wholesome milk, and be in the public interest; and

(c) The tentative marketing agreement and order, as hereby proposed to be amended, will regulate the handling of milk in the same manner as, and will be applicable only to persons in the respective classes of industrial and commercial activity specified in, a marketing agreement upon which a hearing has been held.

#### **Rulings on Exceptions**

In arriving at the findings and conclusions, and the regulatory provisions of this decision, each of the

exceptions received was carefully and fully considered in conjunction with the record evidence. To the extent that the findings and conclusions and the regulatory provisions of this decision are at variance with any of the exceptions, such exceptions are hereby overruled for the reasons previously stated in this decision.

#### **Marketing Agreement and Order**

Annexed hereto and made a part hereof are two documents, a Marketing Agreement regulating the handling of milk; and an ORDER amending the order regulating the handling of milk in the Eastern Ohio-Western Pennsylvania marketing area, which have been decided upon as the detailed and appropriate means of effectuating the foregoing conclusions.

*It is hereby ordered.* That this entire decision and the two documents annexed hereto be published in the Federal Register. The regulatory provisions of the marketing agreement are identical with those contained in the order as hereby proposed to be amended by the attached order which is published with this decision.

#### **Referendum Order To Determine Producer Approval: Determination of Representative Period; and Designation of Referendum Agent**

It is hereby directed that a referendum be conducted and completed on or before the 25th day from the date this decision is issued, in accordance with the procedure for the conduct of referenda (7 CFR 900.300 *et seq.*), to determine whether the issuance of the attached order as amended and as hereby proposed to be amended, regulating the handling of milk in the Eastern Ohio-Western Pennsylvania marketing area is approved or favored by producers, as defined under the terms of the order (as amended and as hereby proposed to be amended), who during such representative period were engaged in the production of milk for sale within the Eastern Ohio-Western Pennsylvania marketing area.

The representative period for the conduct of such referendum is hereby determined to be May 1986.

The agent of the Secretary to conduct such referendum is hereby designated to be C. Mack Endsley.

#### **List of Subjects in 7 CFR Part 1036**

Milk marketing orders, Milk, Dairy products.

Signed at Washington, DC on November 18, 1986.

Kenneth A. Gilles,

*Assistant Secretary for Marketing and Inspection Services.*

[FR Doc. 86-26505 Filed 11-24-86; 8:45 am]

BILLING CODE 3410-02-M

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Parts 25 and 121

[Docket No. 25003; Petition Notice PR-86-12A]

#### Petition of Air Transport Association (ATA) and Aerospace Industries Association (AIA); Reopening of Comment Period

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Petition for rulemaking; reopening of comment period.

**SUMMARY:** This notice announces the reopening of the comment period for Petition Notice PR-86-12 (51 FR 26166; July 21, 1986) which invited comments relative to a joint petition of ATA and AIA to amend §§ 25.853 and 121.312 of the FAR to require different test procedures from those proposed in Notice of Proposed Rulemaking (NPRM) 85-10 (50 FR 15038; April 16, 1985) relative to acceptance criteria for materials used in the interiors of transport category airplane cabins. This reopening is necessary to afford all interested parties an opportunity to present their views on the petition for rulemaking.

**DATE:** Comments must be received on or before January 21, 1987.

**ADDRESS:** Send comments on Petition Notice PR-86-12 in triplicate to: Federal Aviation Administration, Office of the Chief Counsel, Attn.: Rule Docket (AGC-204), 800 Independence Avenue SW., Washington, DC 20591, or deliver in triplicate to Room 915G, 800 Independence Avenue SW., Washington, DC. Comments must be marked: Docket No. 25003. Comments may be inspected in Room 915G weekdays, except Federal holidays, between 8:30 a.m. and 5:00 p.m. In addition, the FAA is maintaining an information docket of comments in the Office of the Regional Counsel (ANM-7), FAA, Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington, 98168. Comments in the information docket may be inspected in the Office of the Regional Counsel weekdays, except Federal holidays, between 7:30 a.m. and 4:00 p.m.

#### FOR FURTHER INFORMATION CONTACT:

Gary L. Killion, Regulations Branch (ANM-112), Transport Standards Staff, Aircraft Certification Division, FAA Northwest Mountain Region, 17900 Pacific Highway South, C-68966, Seattle, Washington, 98168, telephone (206) 431-2912.

#### SUPPLEMENTARY INFORMATION:

##### Discussion

The ATA and the AIA petition was published in the *Federal Register* on July 21, 1986, (51 FR 26166) with a 4-month comment period (which closed on November 19, 1986). Amendment 25-61 (which resulted from NPRM 85-10) was also published in the *Federal Register* on July 21, 1986, (51 FR 26206). This amendment, as adopted, provided a 6-month comment period on the final flammability criteria for the purpose of possibly refining either the test procedures or acceptance criteria. This comment period will close on January 21, 1987. Because of the interrelationship between the subject petition and Amendment 25-61, the FAA has determined that reopening the comment period on the petition to be consistent with the closing date for comments on Amendment 25-61 would be in the public interest. The agency's final decision on the petition will, of course, be consistent with any action taken with respect to Amendment 25-61.

Issued in Washington, DC on November 17, 1986.

John H. Cassady,

*Assistant Chief Counsel, Regulations and Enforcement Division.*

[FR Doc. 86-26344 Filed 11-24-86; 8:45 am]

BILLING CODE 4910-13-M

## DEPARTMENT OF COMMERCE

### Bureau of Economic Analysis

#### 15 CFR Part 806

[Docket No. 61000-6200]

#### Direct Investment Surveys; Raising Exemption Levels for BE-605, 606B, 133B, and 133C Surveys

**AGENCY:** Bureau of Economic Analysis, Commerce.

**ACTIONS:** Notice of proposed rulemaking.

**SUMMARY:** This notice sets forth proposed rules to amend 15 CFR Part 806 by raising the exemption level for four mandatory direct investment surveys conducted by the Bureau of Economic Analysis (BEA). The four surveys are quarterly survey BE-605, Transactions of U.S. Affiliate, Except an

Unincorporated Bank, With Foreign Parent; quarterly survey BE-606B, Transactions of U.S. Banking Branch or Agency With Foreign Parent; annual survey BE-133C, Schedule of Expenditures for Property, Plant, and Equipment of U.S. Direct Investments Abroad; and annual survey BE-133B, Followup Schedule of Expenditures for Property, Plant, and Equipment of U.S. Direct Investments Abroad. The exemption levels for the BE-605 and 606B quarterly surveys would be raised from \$10,000,000 to \$15,000,000 and the levels for the BE-133C and 133B annual surveys would be raised from \$8,000,000 to \$10,000,000.

The purpose of these changes is to reduce the number of survey reports filed, thus significantly reducing the reporting and processing burden.

**DATE:** Any comments on this proposed rule will receive consideration if submitted in writing on or before January 26, 1987.

**ADDRESS:** Send comments to Office of the Chief, International Investment Division (BE-50), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230. Responses to this notice will be available for public inspection from 8:00 a.m. to 4:00 p.m. in Room 608, 1401 K Street, NW., Washington, DC 20230.

**FOR FURTHER INFORMATION CONTACT:** George R. Kruer, Chief, International Investment Division (BE-50), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230, phone (202) 523-0657.

**SUPPLEMENTARY INFORMATION:** The four direct investment surveys for which exemption levels would be raised under this proposed rule are part of BEA's regular investment data collection program. The surveys are mandatory and are conducted pursuant to the International Investment and Trade in Services Survey Act (22 U.S.C. 3101-3108).

The exemption level for a given survey is the level of a U.S. or a foreign affiliate's assets, sales, or net income below which reporting is not required. Consequently, raising the exemption level will lower the number of reports to be filed, and will significantly reduce both the reporting burden on U.S. businesses and the processing burden on BEA.

The increase in the exemption level for the BE-605 and BE-606B surveys would be effective beginning with the reports to be filed for the first quarter of 1987. The increase in the exemption level for the BE-133C survey would be effective beginning with the report due

June 1, 1987, and the increase in the exemption level for the BE-133B survey would be effective beginning with the report due December 1, 1987.

#### Executive Order 12291

BEA has determined that this program rulemaking is not "major" as defined in E.O. 12291 because it is not likely to result in:

- (1) An annual effect on the economy of \$100 million or more;
- (2) A major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or
- (3) Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

#### Paperwork Reduction Act

The surveys covered by these proposed rules contain collection of information requirements subject to the Paperwork Reduction Act. Current OMB approval of the collection of information requirements for the BE-605 and BE-606B surveys (OMB Nos. 0608-0009 and 0608-0023) will expire February 29, 1987; requests for review and re-approval of the collection of information requirements for these surveys, with the higher exemption levels, have been submitted to OMB.

The collection of information requirements for the BE-133C and BE-133B surveys, with current exemption levels, have been approved by OMB (OMB Nos. 0608-0024 and 0608-0020). The paperwork to raise the exemption levels and reduce the reporting burden for these two surveys is pending OMB approval.

Comments regarding these collection of information requirements may be directed to the Office of Information and Regulatory Affairs of OMB, Attention: Desk Officer for the Bureau of Economic Analysis, Washington, DC 20503.

#### Regulatory Flexibility Act

The General Counsel, Department of Commerce, has certified to the Chief Counsel for Advocacy, Small Business Administration, under provisions of the Regulatory Flexibility Act (5 U.S.C. 605(b)), that this proposed rule, if adopted, will not have a significant economic impact on a substantial number of small entities because it raises exemption levels, thereby reducing reporting requirements of small entities. Therefore, a regulatory flexibility analysis was not prepared.

#### List of Subjects in 15 CFR Part 806

Balance of payments, Economic statistics, Foreign investment in the United States, Reporting requirements, U.S. investment abroad.

For the reasons set forth in the preamble, BEA proposes to amend 15 CFR Part 806 as follows:

#### PART 806—[AMENDED]

1. The authority citation for 15 CFR Part 806 continues to read as follows:

Authority: 5 U.S.C. 301, 22 U.S.C. 3101-3108, and E.O. 11981, as amended.

#### § 806.14 [Amended]

2. In § 806.14(f)(1), the exemption level of \$8,000,000 is changed to read "\$10,000,000."

3. In § 806.14(f)(2), the exemption level of \$8,000,000 is changed to read "\$10,000,000."

#### § 806.15 [Amended]

4. In § 806.15(h)(1), the exemption level of \$10,000,000 is changed to read "\$15,000,000."

5. In § 806.15(h)(2), the exemption level of \$10,000,000 is changed to read "\$15,000,000."

Dated: October 24, 1986.

Allan H. Young,

Director, Bureau of Economic Analysis.

[FR Doc. 26486 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-06-M

#### DEPARTMENT OF HEALTH AND HUMAN SERVICES

#### Food and Drug Administration

#### 21 CFR Part 101

[Docket Nos. 76P-0296-PRC and 84N-0153]

#### Food Labeling; Definitions of Cholesterol Free, Low Cholesterol, and Reduced Cholesterol

AGENCY: Food and Drug Administration.

ACTION: Proposed rule.

**SUMMARY:** The Food and Drug Administration (FDA) is proposing to amend the food labeling regulations to define, and to provide for the proper use of, the terms "cholesterol free," "low cholesterol," and "cholesterol reduced" in the labeling of foods; and to provide for use of other truthful and nonmisleading statements about cholesterol content on food labeling. The proposed rule will permit meaningful declarations about the cholesterol content of foods while preventing misleading claims about this food component. It also will amend current

regulations regarding label declaration of the cholesterol and fatty acid content of foods. In addition, FDA is proposing to set forth related agency policies.

**DATES:** Written comments by January 26, 1987. The agency proposes that any final rule that may issue based upon this proposal become effective in accordance with a uniform effective date for compliance with food labeling requirements which is announced by notice in the *Federal Register* and which is not sooner than 1 year following publication of any final rule based upon this proposal.

**ADDRESS:** Written comments to the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857.

**FOR FURTHER INFORMATION CONTACT:** David Hattan, Center for Food Safety and Applied Nutrition (HFF-204), Food and Drug Administration, 200 C St. SW., Washington, DC 20204, 202-245-3117.

#### SUPPLEMENTARY INFORMATION:

##### I. Background

##### A. Cholesterol and Fat

For more than 30 years there has been controversy over the role of dietary fat and cholesterol in the development and treatment of disease of the heart and arteries. To understand the nature of this controversy, one must understand certain basic facts about fat, fatty acids, and cholesterol, which are collectively referred to as "lipids."

Fat is present in most foods, regardless of whether the foods are of plant or animal origin. The amount of fat present in foods varies, ranging from being present in only trace amounts in leafy vegetables to being the major component of cooking oils. A breakdown of fat yields fatty acids and glycerol.

The chemical structures of the fatty acids in a fat are responsible for the fat's characterizing properties. A fatty acid may be saturated or unsaturated. The degree of unsaturation is determined by the number of carbon atoms that are double bonded to each other in the fatty acid. The more carbon atoms that are double bonded to each other, the more unsaturated is the fatty acid. A fatty acid with a single double bond is called a "monounsaturated fatty acid." A fatty acid with two or more double bonds is usually referred to as a "polyunsaturated fatty acid."

Fat from either plant or animal sources usually contains both saturated and unsaturated fatty acids. However, fats from animal sources usually contain

more saturated fatty acids than do fats from plant sources.

Cholesterol differs from fat and fatty acids in that it occurs in significant amounts only in animal tissues. Although most food products that have animal-derived ingredients contain varying amounts of cholesterol, cholesterol is only a minor constituent compared with other components. For instance, it is present in those foods in much smaller quantities than fat.

Cholesterol and fat as components of the diet are not chemically or functionally alike. While both are lipids, cholesterol is a complex chemical belonging to a class of chemical compounds called "sterols." Fats, as stated above, are made up primarily of fatty acids and glycerol and belong to a class of chemical compounds called "glycerides." Both fatty acids and cholesterol are ingested as components of food. Cholesterol and most fatty acids are also synthesized by the body. Cholesterol is important to several body functions, including the synthesis of steroid hormones. Fats are mainly associated in the body with the production and storage of energy. Dietary fats are the source of essential fatty acids that are not synthesized by the body.

#### *B. Diet and Heart Disease*

Coronary heart disease is the single most common cause of death and disability in the United States today. It accounts for more deaths annually than any other disease, including all forms of cancer combined (Ref. 1).

An elevated blood cholesterol level has been implicated as a factor in the development of atherosclerosis or "hardening of the arteries," a major contributor to coronary heart disease. In atherosclerosis, a buildup of solid material in and on the walls of blood vessels occurs that restricts the flow of blood. This material, referred to as "plaque," usually contains an appreciable amount of cholesterol.

For many individuals, there appears to be a correlation between the severity of the plaque deposits and the levels of cholesterol in the blood. Many questions about the buildup of plaque remain unanswered, however, including why plaque deposits are formed, what role the level of cholesterol in the blood plays in plaque formation, and whether, and to what extent, the consumption of saturated fatty acids and cholesterol in the diet influences blood cholesterol levels. In addition, several factors other than blood levels of cholesterol, such as high blood pressure, cigarette smoking, diabetes mellitus, and obesity, seem to

be linked to the development of atherosclerosis (Refs. 2 and 3).

#### *C. Opinions of Expert Organizations and Institutions*

One aspect of the controversy over the role of dietary fat and cholesterol in the development of heart disease is whether healthy individuals should alter their consumption of these food components.

In 1979, the Surgeon General issued a report on health promotion and disease prevention entitled "Healthy People" (Ref. 8). The report concluded that, given what is known or strongly suspected about the relationship between diet and disease, Americans would probably be healthier if, among other dietary changes, they consumed less saturated fats and cholesterol. This position was reaffirmed in advice to the public to "avoid too much fat, saturated fat, and cholesterol" (Ref. 9) contained in "Nutrition and Your Health, Dietary Guidelines for Americans," published jointly by the Department of Health and Human Services and the U.S. Department of Agriculture (USDA) in 1980 and revised in 1985.

A consensus development conference on lowering blood cholesterol levels was held by the National Institutes of Health on December 10-12, 1984. The consensus panel of experts concluded in its report that "elevated blood cholesterol level is a major cause of coronary artery disease," and that "there is no doubt that appropriate changes in our diet will reduce blood cholesterol levels." The panel cited epidemiologic data and over a dozen clinical trials that it said offered reasonable assurance that reducing blood cholesterol levels will afford significant protection against coronary heart disease. Accordingly, the consensus panel recommended that "all Americans (except children under 2 years of age) be advised to adopt a diet that reduces total dietary fat intake from the current level of about 40 percent of total calories to 30 percent of total calories, reduces saturated fat intake to less than 10 percent of total calories, increases polyunsaturated fat intake but to no more than 10 percent of total calories, and reduces daily cholesterol intake to 250 to 300 mg" (Ref. 5).

For some time, the American Heart Association (AHA) has recommended that most people should lower their dietary intake of lipids, particularly cholesterol and saturated fatty acids. AHA recommends that for healthy adults the calories derived from fat should constitute less than 30 percent of total caloric intake. For individuals with one or more risk factors, AHA recommends that total caloric intake

from fat should be less than 25 percent. AHA also recommends that adults in the general population consume an average of less than 300 milligrams (mg) of cholesterol per day (Ref. 2).

The American Medical Association (AMA) issued a statement in 1983 that recommends dietary modifications for persons with hypercholesterolemia (high serum cholesterol) and hypertriglyceridemia (high serum triglycerides). AMA suggests that such persons consume a diet in which no more than 30 to 35 percent of calories are derived from fat and in which there is less than 300 mg of cholesterol per day (Ref. 4).

In 1984, the Inter-Society Commission for Heart Disease Resources published a statement recommending a reduction in dietary cholesterol to no more than 250 mg per day, a reduction in total fat intake to less than 30 percent of calories, and an adjustment in fat intake to provide no more than 8 percent of calories from saturated fat (Ref. 6). The Commission was created in 1969, in response to Public Law 89-239, to develop guidelines for optimal medical resources for the prevention and treatment of cardiovascular disease. The membership of the Commission includes the AMA, AHA, American College of Cardiology, American College of Physicians, American Public Health Association, and 12 other medical associations.

The World Health Organization (WHO) Expert Committee on Prevention of Coronary Heart Disease recommends that in countries with a high incidence of coronary heart disease, such as the United States, blood cholesterol levels should be lowered through progressive changes in eating patterns, including consumption of under 300 mg of cholesterol per day and less than 10 percent of energy intake as saturated fat (Ref. 7).

In January 1984, the National Heart, Lung, and Blood Institute (NHLBI) released the results of a 7 to 10 year clinical study. These results showed that reduction in serum cholesterol by means of the cholesterol-lowering drug cholestyramine resulted in a reduction in fatal and nonfatal heart attacks (Ref. 10). In addition, the study results revealed a linear correlation between cholesterol lowering and a reduction in risk of coronary heart disease. In the study which involved 3,806 men at high risk of developing coronary heart disease, a 19 percent reduction in coronary heart disease risk was obtained as a direct result of an 8 percent reduction in plasma cholesterol. Coronary heart disease risk was

reduced by 50 percent for participants who obtained a 25 percent reduction in total plasma cholesterol. Thus, on the average, for every 1 percent drop in plasma cholesterol, there was a 2 percent reduction in coronary heart disease risk.

Before initiation of the study, all potential participants were placed on a diet that contained about 400 mg of cholesterol per day and that was designed to provide a polyunsaturated-to-saturated fatty acid ratio of approximately 0.8. This diet was designed to lower cholesterol levels by 3 to 5 percent. The diet was offered to all potential participants at the second of five screening visits because, when the study began, many physicians were recommending such a diet to hypercholesterolemic patients. NHLBI hoped that such a diet, along with a nutrition counseling program, would facilitate recruitment of participants. Moreover, because the diet was introduced before random assignment into treatment groups, it was possible to exclude from the study men whose plasma cholesterol levels were highly sensitive to diet. The study began 3 months after the dietary changes were made. By that time, the diet had resulted in a 3.5 percent reduction in total plasma cholesterol and a 4.0 percent fall in LDL-cholesterol, a low density lipoprotein-cholesterol complex associated with increased risk of coronary heart disease (Ref. 11).

Therefore, although the study was not designed to assess directly whether cholesterol lowering by diet prevents coronary heart disease, NHLBI concluded that " \* \* \* its findings, taken in conjunction with the large volume of evidence relating diet, plasma cholesterol levels and CHD [coronary heart disease] support the view that cholesterol lowering by diet also would be beneficial" (Ref. 10).

An additional concern regarding the consumption of fat has surfaced in recent years as a result of epidemiological studies that have repeatedly shown an association between dietary fat and the occurrence of cancer at several sites (Ref. 12). While the data are not entirely consistent and hence the relationship between dietary fat and cancer is not clear, the Committee on Diet, Nutrition, and Cancer of the National Academy of Sciences recommends that the consumption of both saturated and unsaturated fats be reduced in the average U.S. diet.

## II. Need for Change in Current Regulations

### A. Current Regulations

In the Federal Register of January 19, 1973 (38 FR 2132) and of March 14, 1973 (38 FR 6961), as a result of increasing knowledge about the clinical application of medical concepts concerning dietary fat and cholesterol, FDA adopted its current regulations relating to labeling foods with information on cholesterol, fat, and fatty acid composition. These provisions were designed to assist individuals on fat-modified diets in purchasing food. In addition, they were intended to help prevent consumers from being misled by claims indicating that a number of common foods with relatively high levels of fats were valuable in the control or reduction of blood cholesterol levels and thus were appropriate for the prevention or treatment of diseases of the heart and arteries.

Because of the agency's concern about the improper and misleading use of information regarding cholesterol, the current regulations are quite restrictive concerning the use of such information. Except for the inclusion of fatty acid and cholesterol content information in nutrition labeling (21 CFR 101.9), and as limited by 21 CFR 101.25(b), the only references to cholesterol that the agency presently permits on the label are the statement required by § 101.25(d) when cholesterol information is provided that: "Information (or 'this information') on fat (and/or cholesterol, where appropriate) content is provided for individuals who, on the advice of a physician, are modifying their dietary intake of fat (and/or cholesterol, where appropriate)," and the statement permitted by § 101.25(g), which advises consumers where on the label cholesterol information may be found. FDA's regulations make no other provision for the inclusion of cholesterol information in food labeling.

### B. Need for Change

A common theme of the organizations that have expressed an opinion on the influence of diet on the development of heart disease is that it would be beneficial for the general population to have more information about the cholesterol and fat content of foods. This theme is supported by the National Cholesterol Education Program (NCEP), which is being coordinated by NHLBI. NCEP's mission is the reduction of coronary heart disease morbidity and mortality related to elevated blood cholesterol. This mission is to be accomplished through extensive cooperation and coordination of many

government and private sector health organizations. NCEP plans to develop programs for health professionals, their patients, and the public to increase awareness of the importance of lowering elevated blood cholesterol levels and, in part, to provide necessary information to use dietary changes to accomplish this lowering.

Recognition of the value of more information about the cholesterol and fat content of foods provides a new impetus to amend existing labeling regulations to encourage the quantitative declaration of cholesterol and fatty acids on food labels. In addition, the Consensus Development Conference on Lowering Blood Cholesterol to Prevent Heart Disease and the Inter-Society Commission on Heart Disease Resources have specifically recommended that labeling regulations be reviewed and revised to assist the consumer in easily determining the amount and type of fat and cholesterol present and to encourage the manufacture of nutritious products low in saturated fats and cholesterol (Refs. 5 and 6).

## III. FDA's Response to Need for Change

There has been only limited use of fatty acid and cholesterol labeling since the current regulations became effective. Manufacturers have objected to the form of the fatty acid and cholesterol labeling that the regulations permit and to the prohibition of any labeling statements about cholesterol and fatty acids not expressly permitted by the regulations.

Several manufacturers filed petitions between 1973 and 1975 seeking to establish common or usual name regulations for specially processed breakfast meat and egg replacements and to use terms such as "cholesterol free" and "cholesterol reduced" as part of the statement of identity. By letter, FDA denied each of these petitions on May 3, 1976, stating that any reference to cholesterol in the name of a food would give that food a special dietary significance that, based on current knowledge about the value of dietary cholesterol control, it does not deserve.

General Mills, Inc., Miles Laboratories, Inc., Standard Brands, Inc., and SmithKline Corp. jointly filed a petition for reconsideration of the agency's denial (Docket No. 76P-0296-PRC). They focused on use of the term "cholesterol free" as a designation for certain classes of foods. They argued that although this term could be misleading when used in the name of some foods, the cholesterol-free designation was entirely proper and not

misleading for the products specifically mentioned in their original petitions.

While reconsidering its denial of these petitions, FDA concluded that it would be appropriate to examine consumer views on cholesterol labeling. Therefore, the agency included cholesterol labeling as a topic in its consumer food labeling surveys conducted in 1978 (Ref. 13) and in 1983 (in conjunction with NHLBI) (Ref. 14) and in the 1978 food labeling hearings it conducted jointly with USDA and with the Federal Trade Commission's (FTC) Bureau of Consumer Protection (Ref. 15).

In preparing this proposal on cholesterol labeling, the agency has examined and taken into consideration all of the information on cholesterol that it has received in response to its consumer food labeling surveys, the tri-agency hearings, and the December 21, 1979 (44 FR 75990), **Federal Register** notice that described the results of those hearings, as well as those issues raised in the industry's petition for reconsideration.

Having reconsidered its earlier denial of the industry's petitions, FDA finds that it would not be appropriate to propose the common or usual name regulations that the petitioners requested because the thrust of such an action would be too narrow. FDA does find, however, that the petitioners' concerns about the restrictiveness of the existing regulations are appropriate. FDA agrees that regulations restricting truthful and nonmisleading product information are not in the consumer's best interest.

Furthermore, although the benefits of a reduction in total dietary fat and cholesterol for the general population have not been shown beyond doubt, the agency is impressed by the recommendations concerning dietary intake of these substances that it has described above and by the results of the recent NHLBI study.

Moreover, the FDA/NHLBI consumer survey found that 65 percent of the respondents were concerned about their consumption of cholesterol (Ref. 14). Of those concerned, 12 percent had been advised by a physician or other health professional to reduce cholesterol and another 35 percent decided to reduce cholesterol in their diet on their own initiative.

The agency's present position, therefore, is to encourage the voluntary declaration of cholesterol and fatty acid content on labeling to assist individuals in lowering their intake of these substances should they so desire, as well as to assist those individuals who have been medically directed to modify their intake of these substances. Since

total fat is already a mandatory part of nutrition labeling, no changes concerning fat content declarations are being proposed.

This rulemaking does not purport to deal with whether it is possible to use the food label to communicate explicit health-related information and does not reach the issue of the type of information, if any, on cholesterol and health that might be appropriate for food labeling. FDA is currently considering these issues in another proceeding (reference health claims proposal). The agency notes, however, that responsible communication on food labeling about the current state of knowledge on the relationship between nutrition and health may raise extremely difficult and complex issues. For example, the manner in which health-related information is presented can directly call into play the misbranding and new drug provisions of the act. In the case of cholesterol, it must be clear to consumers that the consumption of a specific food is not likely to contribute significantly to a change in blood cholesterol levels without a modification of the diet to reduce the total amount of fat, saturated fat, and cholesterol consumed. The possibility for confusion resulting from unsubstantiated or misleading health-related information on food labels provides the basis for the prohibition in § 101.9(i)(1) of claims that a specific product in and of itself is effective in the prevention, cure, mitigation, or treatment of any disease or symptom.

Nonetheless, as a result of its review of the petition for reconsideration, of the reports referenced above, and of the fact that large numbers of people, whether on their own initiative or under the direction of a physician, want to follow diets that are lower in fat and cholesterol, FDA has tentatively concluded that its present regulations are unduly restrictive. The agency believes that more information on cholesterol content than it currently permits could be provided on food labels without being false or misleading. Significant segments of the public health community are recommending that individuals modify their total intake of these substances to effect changes in the levels of lipid components in the blood. Consequently, informative labeling that will help individuals identify foods for inclusion in fat- and cholesterol-modified diets should be provided. The agency is proposing to amend its present regulations accordingly.

In addition, in the interest of streamlining and ensuring the consistency of food labeling regulations, the proposed rule deletes certain

unnecessary provisions of the existing regulations that are duplicative or merely restate statutory provisions. The general approach taken by the agency in this proposal is consistent with the approach that it took with respect to sodium labeling and should not be construed as a change in policy with respect to sections 201(n) and 403(a) of the act or other implementing provisions.

Inasmuch as this proposal addresses the underlying concern of the petitioners who submitted the petition for reconsideration, and would permit labeling similar to that requested, the agency views this proceeding as a final disposition of the petition.

#### IV. Use of Standardized Terms and Their Definitions

This proposed rule would establish definitions for the terms "cholesterol free," "low cholesterol," and "reduced cholesterol." These definitions appear in proposed § 101.25(a)(3). FDA is proposing these definitions under sections 201(n) and 403(a) of the act. Those sections authorize the agency to prohibit labeling that is false or misleading in that it fails to reveal material facts with respect to consequences that may result from the use of the article. Because many medical professionals are asking their patients to reduce their dietary intake of cholesterol and to modify the dietary intake of fatty acids, and because consumers are concerned about and wish to reduce their intake of cholesterol and to modify their intake of fatty acid, it is important that label statements not convey a misleading impression about the cholesterol or fatty acid content of a food.

The agency believes that the establishment of specific definitions designed to standardize certain terms used by manufacturers to describe the cholesterol content of a food is desirable. FDA is concerned that without clear guidance, manufacturers might use the same terms on products that vary widely in cholesterol content. FDA is encouraging manufacturers to use these terms; moreover, FDA is proposing to permit use of comparative terms describing cholesterol content so long as they are truthful and not misleading, as discussed below.

FDA requests comments on the proposed definitions and any suggestions as to other definitions that might more effectively inform consumers about a food's cholesterol content. The agency will consider and respond to all such comments in any final rule published on this matter.

In developing these definitions, FDA examined cholesterol data for approximately 450 cholesterol-containing food products. The agency tabulated and examined this information on the basis of cholesterol content per serving of food, cholesterol content per 100 grams of food, cholesterol content per 100 kilocalories (Calories) of the food, and cholesterol contribution on the basis of estimated frequency of consumption of the food (Ref. 16). (Data tables of cholesterol content information have been placed on file with the Dockets Management Branch, Food and Drug Administration.) The agency also examined other data bases specifying cholesterol content of foods (Refs. 17 and 18).

Having completed this examination, the agency is proposing that the definitions of the terms describing cholesterol content be based on the cholesterol content per serving of food. The agency believes that labeling claims should relate as simply and directly as possible to consumer experience and understanding, and that, as a result of current nutrition labeling practices, consumers are most familiar with descriptions of food in terms of servings. Moreover, in 1981, FDA published the results of a survey of consumers, nutritionists, and food industry representatives concerning what nutrition information they felt should be included in food labels to make those labels most useful to consumers in improving nutritional status and reducing dietary health problems. All groups of respondents preferred having nutrition information continue to be presented on a "per serving" basis rather than in terms of 100 gram or 100 Calorie units (Ref. 19).

Accordingly, FDA is proposing to eliminate the dual labeling provisions established in current § 101.25(b)(2) that require the declaration of cholesterol both in terms of milligrams per serving and milligrams per 100 grams of food. A large number of consumers have commented that the dual requirement is confusing and unnecessary. Under the proposal, cholesterol content will only have to be declared quantitatively in terms of milligrams per serving.

#### *A. Cholesterol Free*

FDA is proposing to define the term "cholesterol free" to describe foods containing less than 2 mg of cholesterol per serving. A food inherently having less than 2 mg of cholesterol per serving, e.g., peanut butter, may appropriately be described as a "cholesterol-free food," as long as any labeling claim to that effect clearly refers to all such food and not merely to the particular brand to

which the labeling attaches (e.g., "peanut butter, a cholesterol-free food"). Foods that ordinarily contain less than 2 mg of cholesterol per serving include fruits, vegetables, grains, nuts, and seeds, as well as fats and oils derived solely from vegetable sources.

Under the proposed regulation, the term "cholesterol free" can also be used to describe foods that have been formulated or processed specifically to lower the cholesterol content, provided that those foods are substitutes for, and resemble in organoleptic properties, foods containing higher levels of cholesterol. For example, breakfast meat analogs made with soy or other nonmeat ingredients may be formulated to substitute for sausage products. If such analogs are made to contain less than 2 mg of cholesterol, they may be labeled as "cholesterol free."

FDA is proposing to define the term "cholesterol free" to include food with less than 2 mg of cholesterol per serving because it is not practical or reasonable to establish an absolute zero level requirement in analytic terms. The variability in ordinary methodology used to determine cholesterol content does not generally permit precise determination of cholesterol below the 2 mg per serving level. However, although in some cases it may be possible analytically to detect levels of cholesterol of 2 mg or less, such low levels of cholesterol are biologically and nutritionally insignificant. In addition, it is not technologically feasible to remove all traces of cholesterol from foods.

Some may contend that the term "cholesterol free" will mislead consumers into believing that food so labeled is completely without cholesterol. However, the agency believes that no harm will result from any technical misunderstanding caused by the use of this term because foods containing less than 2 mg of cholesterol per serving contain a trivial amount of cholesterol compared to the total dietary intake of cholesterol for any particular individual. FDA established a policy of using "free" as a descriptor of dietetically insignificant components when it adopted regulations for sodium content (49 FR 15510; April 18, 1984). Medically, such insignificant amounts of cholesterol represent a functional, or biological, zero level.

#### *B. Low Cholesterol*

The agency is proposing to define the term "low cholesterol" to describe foods that contain less than 20 mg of cholesterol per serving. A food inherently containing less than 20 mg of cholesterol per serving may appropriately be described as "a low

cholesterol food," provided that any labeling claim to that effect clearly refers to all foods of that type and not merely to the particular brand to which the labeling attaches. The term "low cholesterol" can also be used to describe foods that have been formulated or processed specifically to lower the cholesterol content, provided that such foods are substitutes for, and resemble in organoleptic properties, foods containing higher levels of cholesterol. For example, a manufacturer produces a quiche mix that contains over 300 mg cholesterol per serving. By removing the egg yolks, however, the manufacturer develops a new formulation that contains less than 20 mg cholesterol per serving. The quiche mix made by the new formulation may be labeled as "low cholesterol quiche mix".

FDA selected the 20-mg-per-serving cutoff as a result of the agency's examination of cholesterol content of foods (Refs. 16, 17, and 18). The agency found that foods containing less than 20 mg of cholesterol per serving are generally those that have been identified as useful to persons who want to control or moderate their cholesterol intakes or to maintain their cholesterol intakes at relatively low levels (Refs. 20 and 21).

In addition, the agency's survey of cholesterol content of foods suggests that the 20-mg level is a convenient cutoff point. Almost 25 percent of the cholesterol-containing foods surveyed contain less than 20 mg of cholesterol per serving (Ref. 16). These foods include products such as skim and lowfat milk, cheeses and yogurt made from skim and lowfat milk, and a wide assortment of processed items such as many types of bread, cereals, macaroni, crackers, and other baked items, salad dressings, mayonnaise, and snack chips.

The agency recognizes that it would be extraordinarily difficult to plan an adequate diet solely from low cholesterol foods. Doing so would, for example, significantly limit the consumption of most foods from animal sources because they generally contain more than 20 mg cholesterol per serving. Most people want, and need, to include some foods from animal sources in their diets. Consequently, health care providers try to overcome this problem by building cholesterol-restricted diets around a daily allotment of animal protein and then rounding out the diet with low cholesterol foods.

The agency believes that "low cholesterol" should be defined with this common practice in mind. The 20-mg-per-serving level is low enough that it will provide the consumer with a safety

factor in adhering to cholesterol restrictions, even with some foods from animal sources in the diet. Also the proposed use of the term "low cholesterol" will furnish consumers attempting to control their cholesterol intake with useful information for accomplishing this goal.

#### *C. Cholesterol Reduced*

The agency is proposing that the term "cholesterol reduced" (or "reduced cholesterol") be applied only to those foods that contain no more than one-quarter of the cholesterol content of the foods for which they are represented as substitutes, and that they resemble in organoleptic properties. Products labeled as "cholesterol reduced" will have to provide comparative quantitative information on the extent of the cholesterol reduction (e.g., "the cholesterol content of this bread pudding has been reduced from 120 mg to 30 mg per serving"). The reference point against which comparisons are to be made should be an industry-wide "normative" cholesterol content value of foods for which the "cholesterol reduced" food serves as a direct replacement, rather than an extraordinarily high cholesterol 27 content level of a single food product. In addition, the cholesterol reduced claim and the comparative quantitative information will have to appear together on the same panel of the label. With comparative information on the cholesterol reduction, the consumer will have information available to evaluate the significance of the claim "cholesterol reduced" when it is used to describe food products.

The agency believes that food labeled as "cholesterol reduced" should provide a significant reduction in cholesterol in comparison with the food it replaces. The requirement of a 75 percent reduction in cholesterol content as a precondition to use of the term "cholesterol reduced" reflects FDA's concern about the many foods that contain relatively large amounts of cholesterol, and the possibility that products with relatively high levels of cholesterol could easily claim to have reduced cholesterol content if the agency permitted a lesser reduction to be reflected in the labeling. More than one-fourth of the cholesterol-containing foods examined by the agency in the 1979 survey contain more than 100 mg of cholesterol per serving, and of these, one-third contain more than 200 mg. Considering that the average adult consumes several cholesterol-containing foods per day, foods having a high cholesterol content should be reduced by at least 75 percent if they are to be

included or used as part of a daily diet containing 300 mg or less cholesterol per day.

Three hundred milligrams or less is the daily intake suggested by the AHA (Ref. 2), AMA (Ref. 4), and WHO (Ref. 7). Clinical studies of healthy adults demonstrate that a reduction of the total dietary intake of cholesterol to 300 mg or less per day can reduce high serum cholesterol levels (Refs. 11, 22, and 23).

By the same token, foods that are inherently low in cholesterol should not be labeled "cholesterol reduced," even though it may be possible to achieve a 75 percent reduction in their cholesterol content. The agency believes that for a food that contains less than 20 mg cholesterol per serving, a reduction in cholesterol content of 75 percent is not significant. However, FDA has decided not to propose to incorporate this belief into § 101.25 because the agency considers it likely that products containing less than 20 mg per serving will be labeled "low cholesterol" rather than "cholesterol reduced." If a manufacturer does choose to use "cholesterol reduced" or both terms, comparative information on the extent of cholesterol reduction will have to be given on the same panel of the label as that on which the claim is made, thereby allowing the consumer to evaluate the significance of the claim.

#### *D. Comparative Claims*

The agency recognizes that there may be food products for which significant reductions in cholesterol content can be made but for which it may not be possible to achieve cholesterol levels that are sufficiently low to allow the products to be labeled as "cholesterol reduced." In order to encourage the increased availability of foods with lowered cholesterol content, the agency is announcing that it has no objection if manufacturers label foods truthfully to show comparative cholesterol reductions using such other terms as "less cholesterol" or "lowered cholesterol," provided that quantitative information on the reduction is provided. For example, a manufacturer could use such terms as "less cholesterol" or "lowered cholesterol" on the label of a product called "pound cake" to show that "this pound cake contains 35 percent less cholesterol than our regular pound cake (cholesterol lowered from 70 mg to 45 mg per serving)." However, to ensure that consumers are not misled into believing that an inconsequential reduction in cholesterol content will provide significant health benefits, the agency will consider appropriate regulatory action against manufacturers who make

comparative labeling statements in those cases where the cholesterol content has been reduced by an inconsequential amount, on the basis that such claims could be inherently misleading. The agency invites comments on this issue.

In order that comparative claims be fully informative, under proposed § 101.25(a)(3)(iv), the label must provide quantitative information on the extent that the cholesterol was reduced, and the comparative claim and quantitative information must appear together on the same panel of the label. In the agency's opinion, the inclusion of both the comparative claim and the quantitative information will help prevent consumer misunderstanding. In addition, FDA considers comparative claims about cholesterol content to be a nutrition claims within the meaning of 21 CFR 101.9 and thus subject to the labeling requirements of that section.

A manufacturer that is unsure about how to use any of the proposed terms may request assistance from FDA's Center for Food Safety and Applied Nutrition.

#### *V. Limitations on Use of Defined Terms*

In defining cholesterol claims, the agency has addressed products that normally contain low levels of cholesterol and those that have been specifically processed or formulated to reduce cholesterol content. Cholesterol is found in nutritionally significant amounts only in foods derived from animal products. Foods formulated solely from plant ingredients contain only minute or undetectable amounts of cholesterol, and labeling claims regarding cholesterol content should not imply that plant-derived products may contain cholesterol.

The agency is concerned that cholesterol labeling claims not be used in a misleading manner. For example, use of the defined terms as part of the statement of identity of products that normally contain low levels of cholesterol can be inherently misleading. The label of a food bearing the statement "cholesterol free applesauce" implies that this particular applesauce is different from regular applesauce because it has less cholesterol. In fact, all applesauce is cholesterol free. Therefore, this proposed regulation will not permit use of the defined terms as part of the statement of identity for foods that normally contain low levels of cholesterol, unless such labeling clearly refers to all foods of that type and not merely to the particular brand to which

the labeling attaches (e.g., "applesauce, a cholesterol free food").

Foods that have been specially processed or formulated to reduce cholesterol content are a different matter. In cases where a food is clearly lower in cholesterol than other foods of the same type, the issue is not whether the food differs from other foods of that type with regard to cholesterol content, but whether it differs from those foods in other ways.

In many cases a significant reduction in cholesterol content results in a change in the basic character of the food. In such cases, use of the cholesterol terms in conjunction with the name of a standardized food or of a food with an established common or usual name would only be appropriate if modified by additional terms (e.g., imitation or substitute) to indicate to consumers that the food differs from the standardized or unmodified product in more than just cholesterol content.

Foods that are fabricated or specially processed to reduce cholesterol content in a manner that does not alter the basic nature of the food and that does not alter the nutritional content in any way other than reduction of cholesterol, fat, and calories, however, may be properly identified using the defined terms as part of the statement of identity for that food.

## VI. Fatty Acid and Cholesterol Labeling

### A. Declaratory Information Statement

FDA is proposing to delete the requirement in current § 101.25(d) that food labels that bear fatty acid or cholesterol information also bear a statement that the information is for individuals modifying their diet on the advice of a physician. The agency is proposing to delete this requirement because consumers in general are increasingly interested in moderating their intake of cholesterol and fat, and many are doing so without specific medical instructions (Ref. 14). Such a statement may not, therefore, always be appropriate and may erroneously imply that a particular food should not be consumed in the absence of such specific medical advice. Also, the statement may not be necessary inasmuch as many health professional groups are suggesting that, for the U.S. population as a whole (with the exception of children under 2 years of age), reduction in total fat, saturated fat, and cholesterol is sensible and harmless (Refs. 2, 5 through 9, and 24).

Additionally, because § 101.25(b)(2)(iii) and (c)(2)(iii) contain a reference to § 101.25(d), FDA is deleting them.

### B. Percent of Calories From Fat

Section 101.25(c)(2)(i) now requires that if a food label bears fatty acid content information, it must also bear the percent of calories from fat as part of the label information. The agency, to encourage food manufacturers to provide fatty acid labeling, is proposing to delete this requirement. This information is not essential to dietary management of fat intake. FDA does not believe that it will be depriving consumers of significant information by eliminating this requirement.

Information on percent of calories from fat is only valuable in measuring total dietary intake of fat and in planning a complete diet based on reducing the total percentage of calories from fat. It is not particularly useful on individual foods. The calculations needed to assess the total dietary calories from fat can be accomplished more easily by using the calories and fat (grams) information provided through nutrition labeling than from the information on percent of calories from fat on a wide variety of foods eaten in a day's time. Furthermore, because information on the percent of calories from fat is not required on all foods bearing nutrition labeling, it does not provide a ready means of calculating total dietary calories from fat.

Those individuals who want to know the percent of calories from fat in a particular food can calculate it readily from the nutrition label by (1) multiplying the number of grams of fat per serving by 9 (each gram of fat furnishes 9 Calories), (2) dividing the resultant number of Calories from fat by the total number of Calories per serving, and (3) multiplying by 100.

### C. Requirement for Both Fatty Acid and Cholesterol Content

Under current § 101.25(c)(2), fatty acid information is required as a part of the nutrition label only when a claim or information specifically related to fatty acids is included on the label or in labeling or advertising. Likewise, under current § 101.25(b), cholesterol information is required as a part of the nutrition label only when a claim or information related to cholesterol is included on the label or in labeling or advertising.

FDA's experience with these regulations has revealed that there is a potential that consumers will be misled. For example, a low or cholesterol-free claim on processed foods that are high in saturated fat, such as certain types of hard margarine or nondairy sour cream, can be misleading unless information on the saturated fat level is also included

on the label. The opposite can also be true. For example, the label for a bakery item may claim that the item has been made with corn or safflower oil and therefore to have high polyunsaturated fat levels, yet that label may make no mention of the item's cholesterol content, which results from the inclusion of other ingredients, such as egg yolks.

In addition, label claims for cholesterol content alone would undermine the integrity of the nutrition labeling concept. The nutrition labeling concept is based on the premise that for consumers to select intelligently a food on the basis of its nutritional properties, a complete disclosure of the key nutritional properties of that food is necessary. Except in unusual circumstances, providing a less comprehensive picture of the nutritional qualities of a food may be deceptive to the consumer.

Most individuals seeking to modify their intake of cholesterol are also interested in restricting their intake of fats and vice versa (Ref. 14). As addressed previously, many health professionals recommend a reduction of saturated fats, as well as of cholesterol, in the diet (Refs. 2 and 4 through 9) in light of current data on the relationship between dietary intake and heart disease.

Because of the inherent potential for consumers to be misled as well as their interest in, and need for, complete information, FDA is proposing to amend § 101.9(c) so that the declaration of either fatty acid composition or cholesterol content will require that quantitative information about both be provided (see proposed § 101.9(c)(6)(ii)). Fatty acid information will not be required, however, on foods that do not contain enough fat to influence total intake of fatty acids. FDA is proposing to amend current § 101.25(c)(1) to define such low fat foods as any food containing less than 2 grams of fat in a serving or any food containing less than 10 percent fat on a dry weight basis.

Section 101.25(c)(1) currently states that fatty acid content is allowed on labels or in labeling as a part of nutrition labeling only when the food contains 10 percent or more fat on a dry weight basis and not less than 2 grams of fat per serving. This precondition to the labeling of fatty acid content stems from a recommendation made in 1967 by the AMA's Council on Foods and Nutrition.

The Council's recommendation was that "labels of foods which contain 10 percent or more of the dry weight as fat should be permitted to indicate the fatty acid composition of the contained fat."

The agency was willing to accept this recommendation and also to allow the declaration of fatty acid content on foods that contain 2 or more grams of fat in an average serving. The agency believed that any food that met either precondition contained a sufficient amount of fat to make declaration of fatty acid content relevant information for use by individuals who wish to regulate their intake of fatty acids. However, the current regulation is written as "10 percent or more fat on a dry weight basis and not less than 2 grams of fat per serving." If either precondition is sufficient, the regulation should read "10 percent or more fat on a dry weight basis or not less than 2 grams of fat per serving." The agency is therefore proposing to amend the regulation to reflect the latter interpretation. The agency is maintaining the definitions of polyunsaturated and saturated fatty acids found in current § 101.25(c)(2)(ii). The basis for these definitions can be found in the Federal Register of January 19, 1973 (38 FR 2132).

#### VII. Other Provisions

In the event that a cholesterol claim is made in labeling, as with any other nutrition claim (with the exception of sodium claims), the label must also bear nutrition labeling in conformity with §§ 101.9 and 101.25.

In cases where a food with cholesterol labeling is represented as a substitute for a traditional food in the diet, the food must be nutritionally equivalent, as defined in § 101.3(e), to the food for which it substitutes or be labeled as an imitation of that food.

The agency is proposing to delete current § 101.25(a) which provides a general statement of agency policy. The presence of such a statement is unnecessary in the Code of Federal Regulations. The deletion of the paragraph should not be construed as a change in agency policy.

The agency is proposing to delete the maximum type size restrictions imposed by § 101.25(f) and (g) to encourage the use of the defined terms provided in this proposal in labeling.

The agency is also proposing to delete the remaining part of § 101.25(g) in the interest of streamlining the food labeling regulations. This provision limits the statements about cholesterol, fat, and fatty acids that may be made in food labeling. Specifically, it provides that no claim that a product will prevent, mitigate, or cure heart or artery disease or any attendant condition may be made in food labeling. Under the proposed revisions of § 101.25, this provision would be duplicative inasmuch as

proposed paragraphs (a)(1) and (b)(2) of § 101.25 require that food labeling that contains information on cholesterol and fatty acid content must comply with § 101.9 as well as with the conditions that those sections themselves set forth. Section 101.9(i), like § 101.25(g), states that a food will be deemed to be misbranded under sections 201(n) and 403(a) of the act if its labeling represents, suggests, or implies that the product will prevent, cure, mitigate, or treat any disease or symptom.

The agency is also proposing to delete the first sentence of current § 101.25(h). The agency is proposing this action because it recognizes the possible value of other descriptive terms which would further characterize the actual nature of the food but are as yet undefined. Thus, the agency is not opposed to the use of these types of terms in labeling as long as quantitative information is provided on the label in conformity with §§ 101.9 and 101.25. The remaining sentence of § 101.25(h) will be retained and redesignated as paragraph (c).

The agency is aware that some foods that are represented for use as a complete meal or as a substitute for a complete meal also contain claims concerning cholesterol. Agency representatives have observed statements such as "a low cholesterol meal" or "provides a complete meal without cholesterol" on packaged foods.

The agency is of the opinion that such terminology applied to foods that are represented as a complete meal or as a substitute for a specific meal has the same potential to be misleading as when it is applied to foods that are components of meals. However, various foods represented together as a complete meal or as a substitute for a specific meal cannot easily be regulated according to the same criteria as those used for regulating individual food items.

The agency advises that foods packaged together as a complete meal or a substitute for a complete meal may also be the subject of one of two defined cholesterol statements as well as statements about meaningful reductions in cholesterol content. If the meal contains less than 100 mg of cholesterol, it may be described as a "low cholesterol meal." The 100 mg standard is derived from the fact that the daily cholesterol intake most commonly recommended for cholesterol-reduced or low-cholesterol diets is 300 mg or less per day. Thus, assuming that most people eat 3 meals a day, it is reasonable that a complete meal containing less than 100 mg of cholesterol be deemed a "low cholesterol meal."

If the meal contains less than 2 mg of cholesterol, it may be described as a "cholesterol-free meal." The term "cholesterol free" is an absolute term implying absence of cholesterol. Therefore, whatever is labeled as "cholesterol free," be it a single serving of food or a complete meal, should in fact be cholesterol free as the agency has defined that term.

Meals labeled with either of these claims, or other truthful and nonmisleading claims describing cholesterol content reductions, and accompanied by nutrition information in accordance with § 101.9, including quantitative information on fatty acid and cholesterol content in conformity with § 101.25, as appropriate, will not be deemed misbranded if they meet these criteria.

Section 101.25(e) concerns how the agency will determine compliance with § 101.25 and is not affected by the changes being proposed other than to be redesignated as § 101.25(d).

#### VIII. Environmental Impact

The agency has determined under 21 CFR 25.24(a)(11) (April 26, 1985; 50 FR 16636) that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

#### IX. Economic Impact

FDA has examined the economic implications of the proposed rule in accordance with Executive Order 12291 and the Regulatory Flexibility Act (Pub. L. 96-345, 94 Stat. 1166). The agency concludes that approximately 250 food manufacturing firms may incur a total first year cost, adjusted to represent 1986 figures, of \$1,071,200 and recurring annual costs of \$31,800 to comply with this proposal. The anticipated costs of this proposal are not of sufficient magnitude to warrant designation as a major rule under any of the criteria specified under section (b) of Executive Order 12291.

In accordance with the Regulatory Flexibility Act, the agency certifies that this proposed rule will not, if promulgated, have a significant economic impact on a substantial number of small entities. The initial compliance costs to small and very small firms are estimated at \$910 to \$960 per firm. Total compliance costs to small firms would, thus, be estimated at between \$180,200 to \$190,100. As these amounts are below the Department of Health and Human Services' guidelines

for a significant economic impact, a regulatory flexibility analysis was not necessary.

A copy of the threshold assessment is on file and available for review in the Dockets Management Branch (address above).

The agency periodically announces by notice in the **Federal Register** uniform effective dates for compliance with food labeling requirements. (See, for example, the **Federal Register** of October 19, 1984 (49 FR 41019).) The agency proposes that any final rule that may issue based upon this proposal become effective in accordance with a uniform effective date for compliance with food labeling requirements which is announced by notice in the **Federal Register** and which is not sooner than 1 year following publication of any final rule based upon this proposal. The final rule would apply to affected products initially introduced or initially delivered for introduction into interstate commerce.

## X. References

The following information has been placed on file in the Dockets Management Branch (address above) and may be seen by interested persons between 9 a.m. and 4 p.m., Monday through Friday.

1. National Center for Health Statistics; "Annual Summary of Births, Deaths, Marriages, and Divorces: United States, 1983," *Monthly Vital Statistics Report*, Vol. 32, No. 13, DHHS Pub. No. (PHS) 84-1120, Public Health Service, Hyattsville, MD, September 21, 1984.
2. Nutrition Committee and Council on Arteriosclerosis, American Heart Association Special Report, "Recommendations for Treatment of Hyperlipidemia in Adults," *Circulation*, 69:1065A-1089A, 1984.
3. Ernst, N.D., and R.I. Levy, "Diet and Cardiovascular Disease," in "Nutrition Reviews' Present Knowledge in Nutrition," Washington, DC, The Nutrition Foundation, pp. 724-739, 1984.
4. The Council on Scientific Affairs of the American Medical Association, "Dietary and Pharmacologic Therapy for the Lipid Risk Factors," *Journal of the American Medical Association*, 250:1873-1879, 1983.
5. Consensus Panel for Lowering Blood Cholesterol to Prevent Heart Disease, Consensus Development Conference Statement, Office of Medical Applications of Research, National Institutes of Health, Bethesda, MD, Vol. 5, No. 7, 1984.
6. Inter-Society Commission for Heart Disease Resources, Kannel, W.B., et al., "Optimal Resources for Primary Prevention of Atherosclerotic Diseases," *Circulation*, 70:153A-205A, 1984.
7. World Health Organization, "Prevention of Coronary Heart Disease," World Health Organization Technical Report Series 878, Geneva, 1982.
8. "Healthy People," the Surgeon General's Report on Health Promotion and Disease

Prevention, Department of Health, Education, and Welfare, DHEW Pub. No. 79-55071, pp. 128-131, 1979.

9. U.S. Department of Agriculture and U.S. Department of Health and Human Services, "Nutrition and Your Health, Dietary Guidelines for Americans," Washington, DC, Home and Garden Bulletin No. 232, U.S. Government Printing Office, 1985.

10. Lipid Research Clinics Program, "The Lipid Research Clinics Coronary Primary Prevention Trial Results," *Journal of the American Medical Association*, 251:351-374, 1984.

11. Levy, R.I., "Science Press Briefing on the Lipid Research Clinics Coronary Primary Prevention Trial," National Institutes of Health, Bethesda, MD, January 12, 1984.

12. Committee on Diet Nutrition and Cancer, Assembly of Life Sciences, National Research Council, "Diet, Nutrition, and Cancer," Washington, DC, National Academy Press, 1982.

13. Heimbach, J.T., and R.C. Stokes, "FDA 1978 Consumer Food Labeling Survey," Department of Health, Education, and Welfare, Washington, DC, 1979.

14. Heimbach, J.T., "Cardiovascular Disease and Diet: The Public View," *Public Health Reports*, 100:5-12, 1985.

15. "Food Labeling: Tentative Positions of Agencies," *Federal Register*, Vol. 44, No. 247, pp. 75990-76020, December 21, 1979.

16. FDA's Cholesterol Content Information Tables.

17. U.S. Department of Agriculture, "Composition of Foods," Human Nutrition Information Service, Washington, DC, Agriculture Handbooks No. 8-1 to 8-12, 1976-1984.

18. U.S. Department of Agriculture, "Provisional Table on the Fatty Acid and Cholesterol Content of Selected Foods," Human Nutrition Information Service, Washington, DC, HNIS/PT-101, 1984.

19. Heimbach, J.T., and R.C. Stokes, "Nutrition Labeling for Today's Needs," National Technical Information Service, Springfield, VA, Pub. No. PB82154402, 1981.

20. Fredrickson, D.S., et al., "Dietary Management of Hyperlipoproteinemia, A Handbook for Physicians and Dietitians," National Heart and Lung Institute, Bethesda, MD, Pub. No. (NIH) 73-110, 1973.

21. The American Dietetic Association, "Handbook of Clinical Dietetics," Yale University Press, New Haven, pp. E3-E54, 1981.

22. Connor, W.E., "The Relationship of Hyperlipoproteinemia to Atherosclerosis: The Decisive Role of Dietary Cholesterol and Fat," in "Biochemistry of Atherosclerosis," New York, Dekker Press, pp. 371-407, 1979.

23. Gotto, A.M., et al., "Primary Hyperlipoproteinemia and Dietary Management," in "Nutrition, Lipids, and Coronary Heart Disease," Raven Press, New York, pp. 247-283, 1979.

24. McGill, H.C., Jr., "Appraisal of Cholesterol as a Causative Factor in Atherogenesis," *American Journal of Clinical Nutrition*, 32:2632-2636, 1979.

## XI. Paperwork Reduction Act

Sections 101.9 and 101.25 of this proposed rule contain information

collection requirements. As required by section 3504(h) of the Paperwork Reduction Act of 1980, FDA has submitted a copy of this proposed rule to the Office of Management and Budget (OMB) for its review of these information collection requirements. Other organizations and individuals desiring to submit comments on the information collection requirements should direct them to FDA's Dockets Management Branch (address above) and to the Office of Information and Regulatory Affairs, OMB, New Executive Office Building, Room 3208, Washington, DC 20503, Attn: Bruce Artim.

Interested persons may, on or before January 26, 1987, submit to the Dockets Management Branch (address above) written comments regarding this proposal. Two copies of any comments are to be submitted, except that individuals may submit one copy. Comments are to be identified with the docket number found in brackets in the heading of this document. Received comments may be seen in the office above between 9 a.m. and 4 p.m., Monday through Friday.

## List of Subjects in 21 CFR Part 101

Food labeling, Misbranding, Nutrition labeling, Warning statements.

Therefore, under the Federal Food, Drug, and Cosmetic Act, it is proposed that Part 101 be amended as follows:

## PART 101—FOOD LABELING

1. The authority citation for 21 CFR Part 101 continues to read as follows:

Authority: Secs. 4, 6, Pub. L. 89-755, 80 Stat. 1297, 1299, 1300 (15 U.S.C. 1453, 1455); secs. 201(n), 403, 701(a), Pub. L. 717, 52 Stat. 1041 as amended; 1047-1048 as amended, 1055 (21 U.S.C. 321(n), 343, 371(a)), 21 CFR 5.10 and 5.11.

2. In § 101.9 by revising paragraph (c)(6) to read as follows:

### § 101.9 Nutrition labeling of food.

(c) \* \* \*

(6)(i) "Fat content" or "Fat": A statement of the number of grams of fat in a serving (portion) expressed to the nearest gram, except that if a serving (portion) contains less than 1 gram, the statement "Contains less than 1 gram" or "less than 1 gram" may be used as an alternative. Fatty acid composition and cholesterol content may also be declared in compliance with § 101.25.

(ii) When fatty acid composition or cholesterol content is declared, both shall be declared, in that order, immediately following the statement of

fat content, except that products that do not meet the requirements of § 101.25(b)(1) need not include fatty acid content information. These declarations shall comply with applicable requirements of § 101.25.

3. In § 101.25 by removing paragraphs (a), (d), (f), and (g), by revising the section heading, by revising and redesignating paragraphs (b), (c), and (h) as paragraphs (a), (b), and (c), respectively, and by redesignating paragraph (e) as paragraph (d) to read as follows:

**§ 101.25 Labeling of foods in relation to fat, fatty acids, and cholesterol content.**

(a) A food label or labeling may include a statement of the cholesterol content of the food, provided that it meets the following conditions:

(1) Nutrition information is provided on the food label in conformity with § 101.9.

(2) A quantitative statement of the cholesterol and, where appropriate, fatty acid content of the food is included in conformity with § 101.9(c)(6)(ii). If the food contains less than 2 milligrams of cholesterol per serving, the content may be stated as zero. If the food contains less than 5 milligrams of cholesterol per serving, the content shall be stated as "less than 5 mg." If the food contains 5 milligrams or more of cholesterol per serving, the content shall be expressed to the nearest 5-milligram increment.

(3) A qualitative statement of the cholesterol content of a food may be used as a part of the statement of identity of such food and elsewhere on the label and in labeling provided such statement complies with the following rules:

(i) The terms "free of cholesterol" or "cholesterol free" may be used on the label or in labeling of foods that contain less than 2 milligrams of cholesterol per serving.

(a) A food that is inherently free of cholesterol within the meaning of paragraph (a)(3)(i) of this section without the benefit of special processing or reformulation to alter cholesterol content may be labeled as a "cholesterol free food" provided that such labeling clearly refers to all foods of that type and not merely to the particular brand to which the labeling attaches, e.g., "spinach, a cholesterol free food." It may not be labeled with the term "cholesterol free" immediately preceding the name of the food (e.g., cholesterol free spinach), because such terminology would imply that the food has been altered to reduce cholesterol as compared to other foods of the same type.

(b) The terms "cholesterol free" or "free of cholesterol" may be used to describe a food that has been specifically formulated or processed to reduce the cholesterol content provided such food is a substitute for and resembles in organoleptic properties a food containing higher levels of cholesterol.

(ii) The terms "low in cholesterol" or "low cholesterol" may be used on the label or in labeling of foods that contain less than 20 milligrams of cholesterol per serving.

(a) A food that is inherently low in cholesterol within the meaning of paragraph (a)(3)(ii) of this section without the benefit of special processing or reformulation to alter cholesterol content may be labeled as a "low cholesterol food" provided that such labeling clearly refers to all foods of that type and not merely to the particular brand to which the labeling attaches, e.g., "lowfat cottage cheese, a low cholesterol food." It may not be labeled with the term "low cholesterol" immediately preceding the name of the food (e.g., "low cholesterol lowfat cottage cheese") because such terminology would imply that the food has been altered to reduce cholesterol as compared to other foods of the same type.

(b) The terms "low cholesterol" or "low in cholesterol" may be used to describe a food that has been specifically formulated or processed to reduce the cholesterol content provided such food is a substitute for and resembles in organoleptic properties a food containing higher levels of cholesterol.

(iii) The terms "cholesterol reduced" or "reduced cholesterol" may be used on the label or in labeling of a food that has been specifically formulated or processed to contain a lower cholesterol content if such food is a substitute for and resembles in organoleptic properties a food containing at least four times its cholesterol content. All labeling locations on or about the food where the term "cholesterol reduced" is used shall bear information comparing the product's per serving cholesterol content with that of the food it replaces.

(iv) A food that has been formulated or processed to contain a lower cholesterol content but that has not achieved the reduction necessary to be labeled "cholesterol reduced" may bear comparative cholesterol information on its label or labeling if such food is a substitute for and resembles in organoleptic properties a food that contains more cholesterol. The comparative information shall include quantitative information on the extent

that the cholesterol was reduced, and each labeling location on or about the food where the comparative information is presented shall also bear information comparing the product's per serving cholesterol content with that of the food that it replaces (e.g., "lowered cholesterol—this pound cake contains 35 percent less cholesterol than our regular pound cake (cholesterol lowered from 70 mg to 45 mg per serving)").

(b) A food label or labeling may include information on the fatty acid content of the food provided that it meets the following conditions:

(1) The food contains 10 percent or more fat on a dry weight basis or not less than 2 grams of fat in an average serving.

(2) Nutrition information is provided on the food label in conformity with § 101.9, including quantitative information on cholesterol and fatty acid content in accordance with the labeling rules in this section. In accordance with § 101.9(c)(6)(ii), the amount of fatty acids shall be included on the label. This amount, calculated as the triglycerides, shall be stated in grams per serving to the nearest gram in the following two categories, stated with the following headings, in the following order, and displayed in equal prominence:

(i) *Cis, cis*-methylene-interrupted polyunsaturated fatty acids, stated as "Polyunsaturated";

(ii) The sum of lauric, myristic, palmitic, and stearic acids, stated as "Saturated".

(c) Any label or labeling containing any statement concerning cholesterol, fat, or fatty acids which is not in conformity with this section shall be deemed to be misbranded under sections 201(n) and 403(a) of the Federal Food, Drug, and Cosmetic Act.

\* \* \* \* \*

Dated: September 16, 1986.

Frank E. Young,

*Commissioner of Food and Drugs.*

Otis R. Bowen,

*Secretary of Health and Human Services.*

[FR Doc. 86-26597 Filed 11-21-86; 11:32 am]

BILLING CODE 4160-01-M

## DEPARTMENT OF JUSTICE

### Parole Commission

#### 28 CFR Part 2

#### Paroling, Recommitting and Supervising of Federal Prisoners

**AGENCY:** United States Parole Commission, Justice.

**ACTION:** Proposed rules and request for comments.

**SUMMARY:** The Parole Commission proposes to make a number of interpretive clarifications, revisions and additions to its paroling policy guidelines contained in 28 CFR 2.20 and 2.36. These changes and additions are intended to make the guidelines more comprehensive and to more appropriately sanction certain sexual offenses against minors, offenses related to the freebased form of cocaine popularly known as "CRACK," and criminal conduct in institutions.

**DATE:** Public comment must be received by December 26, 1986.

**ADDRESS:** Comments should be addressed to: Alan J. Chaset, Deputy Director of Research and Program Development, U.S. Parole Commission, 5550 Friendship Blvd., Chevy Chase, Maryland 20815, Telephone (301) 492-5980.

**FOR FURTHER INFORMATION CONTACT:** Alan J. Chaset, Telephone (301) 492-5980.

**SUPPLEMENTARY INFORMATION:** The proposed revisions to 28 CFR 2.20 and 2.36 fall into three categories: (a) A revision of an offense example in the Offense Severity Index of § 2.20 that covers unlawful sexual conduct with minors to clarify, and more appropriately sanction the offenses described therein; (b) a revision to the offense examples in the Offense Severity Index of § 2.20 adding a new example to sanction offenses related to the freebased form of cocaine popularly known as "CRACK"; (c) a revision of the rescission guidelines found in § 2.36 to more appropriately sanction criminal behavior in prisons.

(a) First, Offense Example 232 in Chapter 2, Subchapter D of the Offense Behavior Severity Index of 28 CFR 2.20 grades the severity for unlawful sexual conduct with minors (e.g., carnal knowledge) as Category Four. Carnal knowledge is defined as sexual intercourse with a female who is less than sixteen years of age and who is not the wife of the offender. Offense Example 232 contains an exception that provides that: if the relationship is clearly consensual, and the victim is at least fourteen years old, and the age difference between the victim and the offender is less than four years, then the offense is to be graded as Category One. Finally, as a note to this offense example, the guidelines state that, if the victim is less than twelve years of age at the time of the offense, the aggravating factor of an extremely vulnerable victim is presumed to exist thus providing a

rationale to go above the appropriate guideline range.

After reviewing this offense example, the Commission proposes to clarify the offenses/behavior covered therein by revising the title of 232 to "Carnal Knowledge of Sodomy Involving Minors" and, to more appropriately sanction this conduct, where the victim is less than fourteen years of age, to increase the severity to Category Seven. The Commission proposes further to add a new offense example, 233, to provide guidance for rating other unlawful sexual conduct with minors. Additionally, the Commission proposes to change the title of Offense Example 231 (Forcible Rape or Forcible Sodomy) to "Rape or Forcible Sodomy," thus removing a redundancy.

(b) Next, over the past several months, the Parole Commission, like the public in general, has been introduced to information about a new, more potent form of cocaine known as "CRACK". Details as to the addictive nature of this drug, as to its manufacture and the typical distribution methods associated with it, and as to its availability to a wider audience of users because of its relatively inexpensive street sales price, convinced the Commission that the existing sanctions provided for cocaine in the Offense Behavior Severity Index of § 2.20 may not appropriately sanction offenses related to this freebased form of that drug.

The Parole Commission had proposed, therefore, to amend its paroling policy guidelines contained in 28 CFR 2.20 and to develop separate guidelines for "CRACK". In that regard, the Commission sought public comment as to the nature and content of these guidelines by publishing an Advance Notice of Proposed Rulemaking in the July 31, 1986 edition of the *Federal Register* (51 FR 27424). In an effort to broaden the reviewing audience, thus increasing the potential for the receipt of useful comment, the Commission arranged for the Department of Justice to issue a press release on the proposal. Additionally, over 75 letters describing this endeavor were forwarded to members of Congress and other organizations and individuals interested in and knowledgeable about the drug. Further, an article was published in *The Third Branch* (the monthly newsletter of the Federal Judiciary) further detailing the effort.

In response, the Parole Commission received ten (10) comments. Four (4) United States Senators (D'Amato, Dodd, Heflin and Roth) wrote to note their approval of the Commission's effort to address the problem created by the drug, but only one (1) (D'Amato) had a

specific recommendation: he stated that increasing the existing cocaine guidelines by a factor of ten would be warranted because of "CRACK's" "extreme potency and its addictive qualities, and of the small quantities in which it is produced and sold." The District Attorney in Philadelphia suggested that the Commission treat "CRACK" like it treats Dilaudid, while the treasurer of Americans for Substance Abuse Prevention counseled that the penalties for possession of one gram of "CRACK" be equivalent to the penalties for 1,000 grams of regular cocaine. The Chief Probation Officer from the Eastern District of Missouri "supported" the proposal to do something, but expressed a concern that these new guidelines for "CRACK" might "inadvertently decrease criminal acts regarding the distribution of 'regular' cocaine"; and the Chief Probation Officer for the Northern District of Indiana labeled the proposal as "a responsible and reasonable approach" to the issue, but one that may need future revision. An inmate at the Federal Correctional Institution at Petersburg, Virginia, wrote to inform the Commission that making "CRACK" has the side effect of removing impurities from cocaine, thus reducing the total amount of the drug in question. Finally, the Assistant Attorney General for the Criminal Division of the U.S. Department of Justice wrote to "commend" the Commission's efforts in recognizing the dangers of the drug and stated that, until enhanced penalties are enacted for "CRACK" by the Congress, the Commission's proposal was "the most significant action that can be taken" in this regard.

The Commission proposes to adopt separate guidelines for "CRACK," guidelines that treat the drug as ten times more potent than cocaine and are based on the weight of the drug alone, with no specific purity measure. In this regard, the Parole Commission seeks specific comment on two issues. The first relates to the relative potency of "CRACK" cocaine as compared with other forms of the drug. The Commission's proposal rates various quantities of "CRACK" in severity categories corresponding to the categories for  $\frac{1}{10}$  those quantities for regular cocaine. Information on this determination is thus sought. Secondly, the Commission seeks guidance on how best to define "CRACK." The proposed guidelines now refer to "freebased cocaine." A more appropriate or accurate definition may be needed.

(c) Finally, 28 CFR 2.36 contains the Commission's guidelines for sanctioning

criminal conduct committed in a prison facility. Because of the relative severity and significance of all offenses committed in such institutions, the Commission proposes to increase the sanctions imposed for such behavior other than those now in effect for escape, attempted escape, and for certain administrative rule infractions. The sanction for use or simple possession of illicit drugs in institutions and for refusal to provide a urine sample for drug testing would be increased also. As proposed, the sanctions in § 2.36(a)(2)(ii) would be changed as follows: Category One:  $\leq 8$  months; Category Two:  $\leq 10$  months; Category Three: 12–16 months; Category Four: 20–26 months; Category Five: 36–48 months; Category Six: 52–64 months; Category Seven: 64–92 months; Category Eight: 120 + months. The proposed sanction for use or simple possession of illicit drugs would be 0–8 months as would refusal to provide a urine sample.

These proposed rule changes will not have a significant economic impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act.

#### List of Subjects in 28 CFR Part 2

Administrative practice and procedure, Prisoners, Probation and parole.

#### PART 2—[AMENDED]

28 CFR Part 2 is amended as follows:

1. The authority citation for 28 CFR Part 2 continues to read:

Authority: 18 U.S.C. 4203(a)(1) and 4204(a)(6).

2. It is proposed to revise the title of Offense Example 231 in Chapter Two, Subchapter D of the Offense Behavior Severity Index of 28 CFR 2.20 to read as follows:

#### 231 Rape or Forcible Sodomy

3. It is proposed to revise Offense Example 232 in Chapter Two, Subchapter D of the Offense Behavior Severity Index of 28 CFR 2.20 to read as follows:

#### 232 Carnal Knowledge \* or Sodomy Involving Minors

(a) Grade as Category Four, except as provided below.

(b) If the relationship is clearly consensual and the victim is at least fourteen years old, and the age difference between the victim and offender is less than four years, grade as Category One.

(c) If the victim is less than fourteen years old, grade as Category Seven.

4. It is proposed to amend Chapter Two, Subchapter D of the Offense Behavior Severity Index of 28 CFR 2.20 by adding new Offense Example 233 to read as follows:

#### 233 Other Unlawful Sexual Conduct With Minors

(a) Category Four.

(b) Exception: If the victim is less than fourteen years old grade as Category Six.

5. It is proposed to amend Chapter Nine, Subchapter C of the Offense Behavior Severity Index of 28 CFR 2.20 by adding new Offense Examples 923 and 924 to read as follows:

#### SUBCHAPTER C—COCAINE OFFENSES

#### 923 Distribution or Possession With Intent to Distribute Freebased Cocaine ("CRACK")

(a) If extremely large scale (e.g., involving 1.5 kilograms or more), grade as Category Eight [except as noted in (c) below];

(b) If very large scale (e.g., involving 500 grams, but less than 1.5 kilograms), grade as Category Seven [except as noted in (c) below];

(c) Where the Commission finds that the offender had only a peripheral role,\* grade conduct under (a) or (b) as Category Six;

(d) If large scale (e.g., involving more than 100 grams, but less than 500 grams), grade as Category Six [except as noted in (e) below];

(e) Where the Commission finds that the offender had only a peripheral role, grade conduct under (d) as Category Five;

(f) If medium scale (e.g., involving 10 grams–100 grams), grade as Category Five;

(g) If small scale (e.g., involving 1 gram–9.9 grams), grade as Category Four;

(h) If very small scale (e.g., involving less than 1 gram), grade as Category Three;

#### 924 Simple Possession of Freebased Cocaine ("CRACK") Category One

6. It is proposed to revise Paragraph (a)(1) of the Rescission Guidelines in 28 CFR 2.36 to read as follows:

#### § 2.36 Rescission guidelines.

(a) \* \* \*

(1) Administrative Rule Infraction(s) (including alcohol abuse) normally can be adequately sanctioned by postponing a presumptive or effective date by 0–60 days per instance of misconduct, or by 0–8 months in the case of use or simple possession of illicit drugs or refusal to

provide a urine sample. Escape or other new criminal conduct shall be considered in accordance with the guidelines set forth below.

\* \* \* \* \*

7. It is proposed to revise Paragraph (a)(2)(ii) of the Rescission Guidelines in 28 CFR 2.36 to read as follows:

#### § 2.36 Rescission guidelines.

(a) \* \* \*

(2) \* \* \*

(ii) Other New Criminal Behavior in a Prison Facility.

Severity rating in the new criminal behavior (from § 2.20)	Guideline range
Category one.....	$\leq 8$ months.
Category two.....	$\leq 10$ months.
Category three.....	12–16 months.
Category four.....	20–26 months.
Category five.....	36–48 months.
Category six.....	52–64 months.
Category seven.....	64–92 months.
Category eight.....	120 + months.

Dated: November 4, 1986.

Benjamin F. Baer,

Chairman, U.S. Parole Commission.

[FR Doc. 86–2650 Filed 11–24–86; 8:45 am]

BILLING CODE 4410–01–N

#### DEPARTMENT OF TRANSPORTATION

#### Coast Guard

#### 33 CFR Part 165

[CGD 86–12]

#### Regulated Navigation Area; Houston Ship Channel, Houston, TX

AGENCY: Coast Guard, DOT.

ACTION: Notice of proposed rulemaking.

**SUMMARY:** The Coast Guard is proposing to establish a regulated navigation area along the upper reaches of the Houston Ship Channel in order to control vessels mooring abreast at certain waterfront facilities. This control is considered essential to minimize hazards to vessel traffic created by the intrusion of these vessels into the Houston Ship Channel.

**DATES:** Comments must be received on or before January 9, 1987.

**ADDRESSES:** Comments should be mailed to Commander, Eighth Coast Guard District (mps), Hale Boggs Federal Building, 500 Camp Street, New Orleans, Louisiana, 70130–3396. The comments will be available for inspection and copying at the Hale Boggs Federal Building, Room 1341, telephone: (504) 589–6901. Normal office hours are between 7:30 a.m. and 4:00 p.m., Monday through Friday, except

\* Terms marked by an asterisk are defined in Chapter Thirteen.

Federal holidays. Comments may also be hand delivered to this address.

**FOR FURTHER INFORMATION CONTACT:**

Lieutenant Commander Al Dujenski, telephone: (713) 672-6639, or Lieutenant E.M. Stanton, telephone: (504) 589-6901.

**SUPPLEMENTARY INFORMATION:**

Interested persons are invited to participate in this rulemaking by submitting written views, data, or argument. Persons submitting comments should include their names and addresses, identify this notice and the specific section of the proposal to which their comments apply, and give reasons for each comment. Receipt of comments will be acknowledged if a stamped self-addressed postcard or envelope is enclosed. All comments received before the expiration of the comment period will be considered before final action is taken on this proposal. The proposed rules may be changed in light of the comments received. No public hearing is planned, but one may be held if written requests for a hearing are received and it is determined that the opportunity to make oral presentations will aid the rulemaking process.

**Drafting Information**

The drafters of this notice are Lieutenant Commander Al Dujenski, Project Officer, Coast Guard Port Safety Station, Houston, and Lieutenant Commander J.J. Vallone, Project Attorney, Eighth Coast Guard District Legal Office.

**Discussion of Proposed Regulations**

This action is being considered because of the hazards associated with vessels mooring in that portion of the Houston Ship Channel above the Jesse Jones—Beltway 8 Bridge normally used by deep-draft vessels. This channel has an average project width of 300 feet, a project depth of 40 feet to Sims Bayou and a project depth of 36 feet above that. Vessels mooring in the narrow confines of this channel can create significant obstructions to the safe passage of deep-draft vessels, endangering not only the passing vessels, but moored vessels and the adjacent waterfront facilities as well. Most waterfront facilities in the area have adequate channel-ward docking space fronting them, within which vessels can moor without intruding into the deep-draft channel. However, at many sites, this space is insufficient to accommodate a vessel mooring abreast to another without obstructing the deep-draft channel. Control over vessels mooring abreast is necessary to prevent such obstructions. The proposed regulations will enable the Captain of

the Port, Houston, to exercise control over these vessels, through the Vessel Traffic Service (VTS), by requiring them to provide advance notice of their intent to moor abreast. Their presence in the deep-draft channel will be coordinated with deep-draft vessel traffic to preclude conflicting uses of the channel. Where necessary, vessels will be prohibited from conducting operations, or required to maintain a continuous guard on VHF Channels 13 & 16, and have the ability to get underway, and clear the channel, without 30 minutes notice. However, at four narrow points on the Houston Ship Channel, the Houston Pilots are of the opinion that mooring vessels abreast of one another at facilities located at these points is extremely hazardous and should be prohibited altogether. Those four points are all located within that area of the Houston Ship Channel under consideration by this proposal. Mooring facilities that would be affected by this prohibition are: Adams 8 and 9, and Brown and Root (first narrow point); Mobil Mining and Chemical, and Hess 2 second narrow point; Manchester A, and Traweck and Radcliffe (third point); and City Docks 1,2,13,14,15,16,17, and Pacific Molasses (fourth narrow point). The Coast Guard has reviewed the Houston Pilots' request, with respect to these four points, and is in agreement with it. However, the Coast Guard feels that the Captain of the Port should retain the authority to grant waivers to any such restrictions in order to have the flexibility to respond to unique situations as they arise.

**Economic Assessment and Certification**

These proposed regulations are considered to be non-major under Executive Order 12291 on Federal Regulation and nonsignificant under Department of Transportation regulatory policies and procedures (44 FR 11034; February 26, 1979). The economic impact of this proposal is expected to be so minimal that a full regulatory evaluation is unnecessary. The proposed regulations are, in fact, already being followed on an informal basis in the area under consideration by this action. Most vessels intending on mooring abreast routinely inform the Captain of the Port of this fact, in advance, and abide by any instruction given them. Such instructions are normally issued as Captain of the Port Orders, under authority of 33 CFR 160.111. With respect to those four narrow points where the Houston Pilots have suggested that vessels mooring abreast of one another at facilities adjacent to these points be prohibited altogether, such practices are already routinely followed because of the perceived

safety hazards involved. Nevertheless, in the past, vessels were permitted to moor abreast of one another at these locations by the Captain of the Port, Houston, on a case-by-case basis. This practice will continue under these regulations. These regulations are, therefore, largely a formalization of existing procedures.

Since the impact of this proposal is expected to be minimal, the Coast Guard certifies that, if adopted, it will not have a significant economic impact on a substantial number of small entities.

**List of Subjects in 33 CFR Part 165**

Harbors, Marine safety, Navigation (Water), Security measures, Vessels, Waterways.

**Proposed Regulations**

In consideration of the foregoing, the Coast Guard proposed to amend Part 165 of Title 33, Code of Federal Regulations, as follows:

**PART 165—[AMENDED]**

1. The authority citation for Part 165 continues to read as follows:

Authority: 33 U.S.C. 1225 and 1231; 50 U.S.C. 191; 49 CFR 1.46 and 33 CFR 1.05-(g), 6.04-1, 6.04-6, and 160.5

2. Section 165.806 is added to read as follows:

**§ 165.806 Regulated Navigation Area, Houston Ship Channel, Houston, Texas.**

(a) The following is a regulated navigation area: the waters of the Houston Ship Channel between the Jesse Jones Bridge (Beltway 8 Bridge) and the Turning Basin located at the northwest end of the Houston Ship Channel.

(b) *Definitions.* "Waterfront Facility" means all piers, wharves, mooring dolphins, and similar structures to which a vessel may be secured.

(c) *Regulations.* (1) The practice of vessels mooring abreast within the regulated navigation area is prohibited, except where permitted by the Captain of the Port, Houston, or where allowed by this regulation.

(2) Each vessel intending on mooring abreast of any vessel moored to a waterfront facility within the regulated navigation area shall provide the Captain of the Port, Houston, via Vessel Traffic Service Houston with at least a 1 hour advance notice. This notice may be provided by telephone: (713) 674-8488 or by radio: VHF Channels 11 or 12 (call: "Houston Traffic").

(3) Upon a determination by the Captain of the Port, Houston, that the

presence of the vessel mooring abreast will obstruct vessel traffic in the Channel, the vessel mooring abreast will comply with the following requirements:

(i) Maintain a continuous radio guard on VHF Channels 13 and 16.

(ii) Have the ability to get underway, and clear the Channel, within 30 minutes notice.

(4) Vessels are prohibited altogether from mooring abreast of one another at the following waterfront facilities, which are located adjacent to four narrow points on the Houston Ship Channel (these restrictions also apply to all successor corporate entities operating at these locations as well):

(i) Adams 8 and 9, and Brown and Root.

(ii) Mobil Mining and Chemical, and Hess 2.

(iii) Manchester A, and Traweek and Radcliffe.

(iv) City Docks 1,2,13,14,15,16, and 17, and Pacific Molasses.

(d) *Waivers.* (1) The regulations of paragraph (c) of this section are waived in the following instances, provided the vessels availing themselves of these waivers clearly do not intrude into the deep-draft vessel channel:

(i) For vessels mooring at any waterfront facility that does not front on the Houston Ship Channel, but fronts on connecting land cuts or tributaries.

(ii) For vessels mooring at any waterfront facility fronting on the Houston Ship Channel that has a minimum of 200 feet of mooring space available at the closest approach of its mooring structure(s) to the deep-draft vessel channel.

(2) The Captain of the Port, Houston, may waive, in whole or in part, any regulation in this section on a case-by-case basis, as deemed necessary and appropriate to that case. An individual desiring such a waiver must make a specific, written request for it to the Captain of the Port, Houston, at least 24 hours in advance of the intended operation for which the waiver is sought. The request must include the following information: The name, address and telephone number of the individual requesting the waiver; the name(s) of the vessel(s) involved; The length and beam dimension(s) of the vessel(s) involved; the mooring location; the date(s) and time(s) waiver is needed for; and the reason(s) a waiver is needed.

Dated: November 10, 1986.

E.B. Acklin,  
Captain, U.S. Coast Guard District, Acting.  
[FR Doc. 86-26447 Filed 11-24-86; 8:45 am]

BILLING CODE 4910-14-M

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 22

[General Docket No. 85-388; (RM 5167); FCC 86-449]

### Rural Cellular Service; Amendments

**AGENCY:** Federal Communications Commission (FCC).

**ACTION:** Proposed rule.

**SUMMARY:** In a Further Notice of Proposed Rulemaking (Notice), the FCC proposes to amend Part 22 of its rules (which apply to Rural Cellular Service) to prohibit: (1) pre-filing, post-filing and post-grant partial settlements among competing non-wireline cellular applicants to serve Rural Service Areas (RSAs); (2) applicants from holding or acquiring any interest in a competing application where there is no full market settlement, except as proposed; (3) the alienation of any interest in a cellular application, permit, or license to offer service until the facility has been placed in operation, except as proposed. The proposals are prompted by abuses of the cellular licensing process. The intended effect is to deter applicants from speculating in facilities. In addition, the FCC proposes to amend its rules for filing cellular radio applications in order to codify its policy that applications may only be filed on the dates it specifies. Inviting comment on its policy allowing only permittees and licensees to apply for authorization to serve areas outside their existing CGSAs but within corresponding MSAs, the FCC will not accept such applications, as of the adoption of the Notice, until this issue is resolved.

**DATE:** Comments must be received on or before December 22, 1986.

Reply comments must be received on or before January 8, 1987.

**ADDRESS:** Federal Communications Commission, 1919 M Street, NW., Washington, DC 20554.

**FOR FURTHER INFORMATION CONTACT:** David H. Siehl, Mobile Services Division, Common Carrier Bureau; tele: 202-632-6450.

This is a summary of the Commission's further notice of proposed rulemaking, adopted October 16, 1986, and released November 7, 1986.

The full text of this Commission decision is available for inspection and copying during normal business hours in the FCC Dockets Branch (Room 230), 1919 M Street, NW., Washington, DC. The complete text of this decision may also be purchased from the Commission's copy contractor,

International Transcription Service,  
(202) 857-3800, 2100 M Street, NW., Suite 140, Washington, DC 20037.

### Summary of Further Notice of Proposed Rulemaking

1. On October 16, 1986, the FCC adopted a Further Notice of Proposed Rulemaking to solicit comments concerning changes in the rules for Rural Service Areas (RSAs) and procedural matters in regard to filing cellular radio applications. The FCC proposes to amend Part 22 of its rules (which apply to the Cellular Radio Service) to prohibit all pre-filing, post-filing and post-grant partial settlements among competing non-wireline applicants who propose to serve RSAs. This proposal is prompted by the flood of applications and filings related to partial settlements which the FCC believes have encouraged speculative filings and delayed its processing of cellular applications. The elimination of partial settlements or cumulative chances for wireline applicants is not proposed. It is also proposed that wireline and non-wireline applicants be prohibited from holding or acquiring *any* interest in more than one application in the same RSA, even that which is less than 1%, except for permissible interests in publicly traded corporations. Further, it is proposed to prohibit the sale, transfer, assignment or other alienation of any interest in a cellular application, permit or license to offer service to RSAs until the facility has been placed in operation. However, it is proposed to allow barter and transfers of interests in construction permits in partial or whole RSAs. The objective of these proposed changes is to deter insincere applicants from speculating in unbuilt or newly constructed facilities and insure the applications reflect a genuine intention to construct and operate the proposed facilities. Finally, there are three matters concerning the filing of all cellular applications. First, it is proposed to amend the rules to codify FCC policy that cellular radio applications may only be filed on the dates specified by the FCC. Second, comment is invited on the existing FCC policy that allows only licensees and permittees to file for authorization to those areas that are outside the existing CGSA but within the MSA. This comment includes addressing whether non-permittees should be allowed to file to serve such areas when the permittee or licensee files, or at some fixed period after the construction permit is granted. Third, effective on the date of adoption of this order and until such time as the previous issue is resolved, no applications

proposing to serve areas not included in existing or proposed CGSAs will be accepted.

2. *Ex Parte*: This is a non-restricted notice and comment rule making proceeding. See § 1.1231 of the Commission's rules, 47 CFR 1.1231 for rules governing permissible *ex parte* contacts.

3. *Initial Regulatory Flexibility Analysis*. Pursuant to the Regulatory Flexibility Act of 1980, 5 U.S.C. § 605(b), it is certified that the proposed rule will not, if promulgated, have a significant economic impact on a substantial number of small entities because by helping to eliminate insincere applications, the proposed rules will encourage the entry and improve the chances of *bona fide* small businesses in the cellular licensing process.

4. *Paperwork Reduction*. The proposal contained herein has been analyzed with respect to the Paperwork Reduction Act of 1980 and found to contain no new or modified form, information collection and/or record keeping, labeling, disclosure, or record retention requirements; and will not increase or decrease burden hours imposed on the public.

5. *Comments*. Pursuant to the applicable procedures set forth in §§ 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415 and 1.419, interested parties may file comments on or before December 22, 1986 and reply comments on or before *January 8, 1987*. All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding.

6. *Service List*. A copy of this *Notice* shall be sent to the Chief, Counsel of Advocacy of the Small Business Administration.

#### Ordering Clauses

7. Authority for this rulemaking is contained in sections 1, 4(i) and 301, 303 and 309 of the Communications Act of 1934, as amended.

8. Effective on the date of the adoption of this *Notice*, October 16, 1986, application proposing to serve areas not included in existing or proposed CGSAs will not be accepted by the Commission.

List of subjects in 47 CFR Part 22; Cellular radio service; General filing agreements; Processing of applications. Federal Communications Commission. William J. Tricarico, Secretary.

#### Proposed Rules

Part 22 of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

### PART 22—PUBLIC MOBILE SERVICE

1. The authority citation for Part 22 continues to read:

Authority: Sections 4, 303, 48 Stat. 1066, 1082, as amended (47 U.S.C. 153, 303).

2. Section 22.6 is amended by adding paragraph (b)(3) to read as follows:

#### § 22.6 Filing of applications, fees, and number of copies.

\* \* \* \* \*

(b) \* \* \*

(3) Notwithstanding any other rule provision of this Part, cellular radio applications may only be filed on the dates specified by the Commission.

\* \* \* \* \*

3. Section 22.33(b)(2) is revised to read as follows:

#### § 22.33 Grants by random selection.

\* \* \* \* \*

(b) \* \* \*

(2) Markets Beyond the Top-120 and Rural Service Areas. In markets beyond the top-120 cellular modified Metropolitan Statistical Areas, the cumulative lottery chances described in paragraph (1) will be awarded to joint enterprises resulting from partial settlements among mutually exclusive wireline applicants only. Any joint enterprise resulting from a partial settlement among mutually exclusive non-wireline applicants for markets beyond the top-120 Metropolitan Statistical Areas will not be entitled to any cumulative lottery chances. Partial settlements among non-wireline applicants for Rural Service Areas are prohibited.

\* \* \* \* \*

4. Section 22.921 is amended by revising the caption for paragraph (b) and by revising (b)(1) to read as follows:

#### § 22.921 Ownership in applications for cellular service for markets below the top-90.

\* \* \* \* \*

(b) Markets beyond the top-120 and Rural Service Areas.

(1) General. Except as otherwise provided herein, no party may have an ownership interest, direct or indirect, in more than one application for the same MSA or NECMA market, except that interests of less than one percent will not be considered. For those areas outside MSA or NECMA markets, no wireline or non-wireline party may have an ownership interest, direct or indirect, in more than one application for the same Rural Service Area, including an interest of less than one percent, except as otherwise provided herein.

\* \* \* \* \*

5. Part 22 is amended by adding a new § 22.922 to Subpart K to read as follows:

#### § 22.922 Transfers and assignments of applications, permits or licenses in Rural Service areas.

(a) Notwithstanding any other section of this Part and except as provided in paragraph (b) of this section, the sale, transfer, assignment or other alienation of any cellular application, permit or license to offer service to Rural Service Areas is prohibited until the facility has been constructed and placed in operation.

(b) Applicants who have construction permits in Rural Service Areas may barter and transfer the interests in such permits in partial or whole Rural Service Areas. These barter and transfers may occur soon as the applicants involved in the exchange have obtained a construction permit in a Rural Service Area.

[FR Doc. 86-26484 Filed 11-24-86; 8:45 am]

BILLING CODE 6712-01-M

### DEPARTMENT OF TRANSPORTATION

#### National Highway Traffic Safety Administration

#### 49 CFR Part 571

[Docket No. 74-14; Notice 481]

#### Federal Motor Vehicles Safety Standards; Occupant Crash Protection

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

ACTION: Notice of Proposed Rulemaking; Denial of Petition.

SUMMARY: Standard No. 208, *Occupant Crash Protection*, provides for the phased-in implementation of an automatic restraint requirement for the front outboard seats in passenger cars, beginning on September 1, 1986, with full implementation to take place on September 1, 1989. The standard also provides that if two-thirds of the population of the United States is covered by effective safety belt use laws by April 1, 1989, then the automatic restraint requirement will be rescinded.

To encourage the development of a variety of automatic restraint systems, the standard provides that a manufacturer that installs a non-belt automatic restraint system, such as an air bag system, at the driver's seating position and a manual lap/shoulder belt at the front right passenger seating position will receive credit for producing one automatic restraint-equipped passenger car ("one car credit") during

the phase-in period. In response to a petition from the Ford Motor Company, NHTSA is proposing to amend Standard No. 208, *Occupant Crash Protection*, to extend temporarily the current one car credit beyond the phase-in period. The limited extension proposed in this notice would not affect the requirement that all cars have automatic restraints beginning September 1, 1989. It would only mean that manufacturers can meet that requirement by installing a non belt system for the driver—the person that is most at risk. The agency is also proposing that manufacturers must install dynamically-tested manual lap/shoulder belts for the right front passenger in vehicles that receive a one car credit beyond September 1, 1989.

The agency believes that a several year extension is warranted by the various technical, engineering and supplier resource problems, identified by Ford, that currently hinder the widespread installation of full-front (driver and passenger) air bag systems. This proposed action would encourage the orderly development and production of passenger cars with full-front air bag systems. The agency believes that the availability of the one car credit should be limited to the time necessary to complete the development and installation of passenger side air bag systems, which the agency believes is about four years beyond model year 1990. The agency specifically seeks comments on how much leadtime is needed to develop and install those systems.

This notice also denies petitions from the Insurance Institute for Highway Safety and Dr. Ing. h.c.F. Porsche requesting the agency to adopt a two car credit during the current phase-in period for cars equipped with driver and passenger side air bag systems. NHTSA believes that the requested two car credit would not lead to increased production of air bag-equipped cars during the current phase-in and could adversely affect safety by substantially reducing the number of cars that would otherwise be equipped with automatic restraints.

**DATES:** Comments must be filed with the agency by December 28, 1986.

**ADDRESS:** Comments should refer to the docket and notice number of this notice and be submitted to: Docket Section, Room 5109, National Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590 (Docket Room hours 8 a.m.—4 p.m.)

**FOR FURTHER INFORMATION CONTACT:** Dr. Richard Strombotne, Chief, Crashworthiness Division, National Highway Traffic Safety Administration,

Room 5320, 400 Seventh Street, SW., Washington, DC 20590 (202-366-2264).

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

On July 11, 1984 (49 FR 28962), Secretary Dole announced her decision on occupant crash protection. The decision provided for the phased-in implementation of an automatic restraint requirement for the front outboard seats in passenger cars, beginning on September 1, 1986, with full implementation to take place on September 1, 1989. To encourage the development of innovative automatic restraint systems, the July 1984 decision also provided that manufacturers that installed a non-belt automatic restraint system, such as an air bag system, in a vehicle during the phase-in period, would receive credit for producing 1.5 automatic restraint-equipped vehicles. The decision also provided that if two-thirds of the population of the United States were covered by effective safety belt use laws, which meet certain minimum requirements, by April 1, 1989, then the automatic restraint requirement would be rescinded.

##### **Ford 1984 Petition To Adopt a One Car Credit**

Subsequent to the issuance of the occupant crash protection decision, Ford Motor Company (Ford) filed a petition for reconsideration with NHTSA seeking a modification of the automatic restraint requirements during the phase-in period. Ford asked the agency to provide for a one car credit to manufacturers that install a non-belt automatic restraint system, such as an air bag, for the driver and a manual lap/shoulder safety belt for the front right passenger. Ford said that such a credit would encourage manufacturers to produce driver-side air bag systems or other non-belt systems sooner than if they had to complete development of passenger-side automatic restraint systems as well.

After carefully analyzing the safety and other effects of the Ford petition, NHTSA decided to expand the credit provision. The agency explained, in a notice published on August 30, 1985 (50 FR 35233), that one purpose of the phase-in is to provide a rapid introduction of the lifesaving benefits of automatic restraints and to facilitate the earliest possible introduction of such restraints to permit the public to become familiar with their operation and benefits. The agency further explained that it adopted the 1.5 car credit provision to encourage the production of a wide variety of automatic restraints, especially in the early years of the

phase-in. The agency concluded that providing a new one car credit for a driver-only, non-belt system would also encourage the early introduction of those systems.

NHTSA also explained that it had fully considered the safety implication of driver-only systems. The agency emphasized that an important safety consideration in its decision was the number of occupants at risk of injury at each seating position, and not just the number of seating positions that are covered by the automatic restraint requirement. NHTSA said that accident data show that there are approximately 2½ to 3 times as many injuries and fatalities involving drivers as there are involving front right seat passengers. Thus, the agency concluded that it was reasonable to encourage manufacturers to provide automatic restraint protection as soon as possible to the driver—the person who is most at risk.

##### **Ford 1986 petition to extend one vehicle credit**

On June 11, 1986, Ford filed a new petition with NHTSA asking the agency to amend Standard No. 208 to permit the production of driver-only non-belt automatic restraint systems after September 1, 1989. Ford noted that it currently is offering a driver-side air bag system as an option on its Tempo and Topaz car lines. It said that if the standard is amended, Ford "will in all likelihood install such a system after September 1, 1989, in the majority of its North American-designed car production, including the family size cars that are expected to be Ford's most popular."

Ford said that permitting the use of driver-only non-belt systems would encourage other manufacturers to produce and market those systems. In addition, extending the one car credit would allow manufacturers "the time needed to pursue orderly development of passenger-side air bags," Ford said. Ford added that one reason it was able to offer a driver-side air bag system in the Tempo and Topaz was because its "successful field experience with the General Services Administration fleet and other fleets—the fruit of the orderly, evolutionary development of that system—gave Ford confidence in its safety and effectiveness, and because Ford was able to begin the process of building a supply base." Ford said that allowing manufacturers time to establish a supply base and to develop and field test a passenger-side air bag system in the same manner would further promote the installation of those systems.

Ford also said that "there are enough significant uncertainties about the feasibility of, and the supply base for, passenger-side air bag systems that it would not be prudent to plan such systems for individual car lines without concurrently conducting parallel programs to develop passive-belt systems for the same car lines. Such parallel programs not only would be wasteful; they simply would not be achievable with available engineering resources."

#### NHTSA Request for Additional Information

After receiving Ford's June 1986 petition, NHTSA requested additional information from Ford to aid the agency in making a decision whether to grant or deny the petition. (NHTSA's letter and the non-confidential portions of the Ford response are filed in Docket 74-14, General Reference, Entries 654 and 654-A) Based on the information in Ford's petition and its supplemental responses, which are discussed below, NHTSA has tentatively decided to amend Standard No. 208 to permit the continued use, beyond September 1, 1989, for a limited period of time, of driver-side, non-belt automatic restraint systems combined with manual lap/shoulder belts for the right front passenger.

To aid the agency in making its final decision on this proposal, NHTSA requests commenters to address the same issues the agency raised with Ford after Ford filed its petition. NHTSA, therefore, requests manufacturers, equipment suppliers, and other commenters to provide information on the three following general areas concerning passenger non-belt automatic restraint systems: technical problems associated with the development of those systems, leadtime issues, such as the time needed for development of a supplier base and the level of engineering and testing resources needed to develop driver and passenger air bag systems at the same time as developing other means of compliance with Standard No. 208, and the safety effects of adopting the Ford petition. In addition, the agency requests commenters to address why installing driver-side air bag systems and passenger-side automatic belts is or is not a viable option. Finally, NHTSA requests manufacturers to provide quantitative estimates of the different types of non-belt automatic restraint systems they would offer for the driver and for the passenger after the phase-in if the proposed amendment is adopted and if the proposed amendment is not adopted.

Although Ford's petition is based on installation of an air bag system, the amendment sought by Ford would apply to the use of any non-belt automatic restraint system, which includes the use of additional interior padding and other structural changes to provide "built-in" safety. NHTSA requests manufacturers pursuing those types of non belt automatic restraint systems to provide the agency with information about the development of those types of systems.

#### I. Technical Problems

As a part of its original petition, Ford said that there were a number of uncertainties, including technical problems, concerning the development of passenger side air bags. In response to NHTSA's letter of June 25, 1986, Ford provided additional information about those technical problems. It said that it was making progress in solving these potential problems and is working toward offering a passenger-side air bag on a 1989 model.

Ford identified a number of technical difficulties that must be overcome before it produces a passenger-side air bag system. Those difficulties include:

- Low temperature ignition characteristics of igniter/generant,
- Optimum design of the aspirator,
- Material of inflator canister,
- Knee bolster design alternatives,
- Optimum deployment door characteristics, and
- Occupant kinematic/bag location.

In addition, Ford said that it was concerned about "avoiding undue hazards to standing children and other occupants who are out of position due, for example, to pre-crash braking. . . ." Ford emphasized that it expects to solve these problems "if we proceed in an orderly, controlled manner to gain experience with passenger-side applications. However, attempting widespread, high-volume application of passenger air bags without this learning experience is simply not prudent," Ford concluded. NHTSA agrees that all of the potential problems identified by Ford appear to be solvable. The agency requests commenters to provide information on any other technical problems they have identified with non-belt systems and to identify the solutions they are pursuing for those problems and the problems identified by Ford as well as the time-frame for these solutions.

#### II. Leadtime Issues

##### A. Establishment of a Supplier Base

In its July 22, 1986, response to NHTSA's request for further information, Ford provided additional

details about potential supplier problems. Ford said that, at present, there are only two domestic suppliers with experience in manufacturing driver-side air bag inflators, and the production capability of those manufacturers is expected to increase during the phase-in period. Ford said that it did not know of any suppliers that have experience with current-technology, passenger-side air bag inflators. Ford also said that the passenger-side inflator it is developing for the 1989 model year incorporates new technology which is "yet unproven and is not based on existing driver-side technology." Ford expressed concern that suppliers must have time to gain experience with this new technology to avoid "component quality problems, problems with tooling and fixtures and supply disruptions," which could jeopardize the introduction of passenger-side systems. Talley Industries, which has been involved in developing and producing air bag inflators for a number of years, has written the agency to support Ford's petition. Talley said that the Ford petition "reasonably balances the requirement for automobile occupant safety with the technical difficulties and high costs of full frontal seat passive restraint."

##### B. Engineering and Testing Needs

In its July 22, 1986, response to NHTSA's request for further information, Ford provided additional details about the problems associated with conducting parallel programs to develop passenger-side air bag systems and automatic safety belts. The specific estimates of the number of people-years of engineering and expenditures needed for a parallel program to develop a motorized automatic safety belt system and a passenger-side air bag system are confidential. However, as Ford emphasized in its response, the issue is not simply one of economics. Ford said, "We simply do not have sufficient qualified engineering personnel or test facilities available to design both passive belt systems and air bag systems for any of Ford's car lines on which passive restraints are first being introduced in the 1990 model year. Neither do the outside suppliers to whom we might contract such work." Ford also said that its ability to meet its current plans would be affected by the need to develop dynamically-tested manual safety belt systems for light trucks.

Ford said, it "is not yet able to predict with any degree of accuracy when it could expect the technical, supply and

market acceptance issues associated with passenger-side air bags to be resolved." Ford said that its current plans provide for the initial introduction of passenger-side air bag systems to allow it to resolve any problems and prepare for making such a system available on additional vehicles.

NHTSA believes that Ford has identified valid concerns about the capability of manufacturers to develop and install passenger side air bag systems during the current phase-in period. At the same time, the technical problems and leadtime considerations identified by Ford are, as Ford acknowledges, capable of resolution; the issue is what is the time needed to develop and implement the needed solutions.

At the time of the July 1984 decision on occupant crash protection, NHTSA estimated that the maximum time necessary for implementation of an air bag system for the driver and the passenger was approximately five years. The information provided by Ford indicates that estimate was optimistic for the *widespread* introduction of driver and passenger air bag systems. So that the agency can make an informed decision about what is the leadtime necessary to develop and install passenger side air bag systems, NHTSA is particularly interested in obtaining additional information from automatic restraint equipment suppliers about their current and estimated future capabilities to provide non-belt systems in large numbers. One organization has already suggested a specific time limit for extending the one car credit. In urging the agency to adopt the Ford proposal, the Insurance Institute for Highway Safety (IIHS) suggested limiting the extension of the one car credit until September 1, 1993. The agency proposes to adopt the IIHS time limit and invites comments to address this proposal.

### III. Safety Effects

#### A. Ford Analysis of Safety Effects

As a part of its June 1986 petition, Ford presented its analysis of the safety effects of permitting the installation of driver-side only air bag systems after September 1, 1989. Based on data developed by the agency in the July 1984 occupant crash protection decision, Ford said that a driver-side system combined with a manual lap/shoulder belt for the front right passenger "should be potentially as effective in reducing overall fatalities nationwide as driver and right front passenger passive restraint systems comprised of motorized or non-motorized 2-point

belts, and more effective than detachable, non-motorized three-point passive belts." Ford's analysis shows that as the level of manual safety belt use increases, most directly as the result of the enactment of State mandatory safety-belt use laws, the potential benefits of a driver-only air bag also increase.

#### B. IIHS Analysis of Safety Effects

Subsequent to Ford's submission of its petition, IIHS wrote NHTSA urging the agency to adopt Ford's proposal. IIHS, however, did not request an open-ended extension of the one car credit, but instead suggested limiting the extension to vehicles produced before September 1, 1993.

As a part of its letter, IIHS included the results of an analysis it prepared on the safety effects of adopting Ford's petition. (The IIHS letter and attachments are filed in Docket 74-14, General Reference, Entry 645.) Based on estimates used in the July 1984 occupant crash protection decision, IIHS estimated that there would be 7,750 fewer annual fatalities once the entire vehicle fleet was equipped with driver-side air bags, assuming 30 percent use of manual belts by front-seat occupants. IIHS noted that "In contrast, a use rate of 70 percent for automatic belts would be required to save about the same number of lives. For moderate and critical injuries, the advantage of the driver-side air bag/manual belt combination are slightly greater . . . As manual belt use increases, the advantage of driver-side air bags becomes even more pronounced."

#### C. NHTSA Analysis of Safety Effects

To analyze the potential effects of adopting Ford's petition, the agency did a breakeven point analysis for different types of automatic restraint systems. The purpose of the analysis was to determine the level of automatic safety belt usage needed to provide the same incremental fatality reduction benefits as a driver side air bag system with a manual lap/shoulder safety belt and a manual lap/shoulder safety belt for the passenger. In doing this analysis, the agency used the fatality reduction estimates of a manual lap/shoulder safety belt used in the driver and right front passenger positions as the baseline to which the fatality reduction effectiveness of four other restraint systems (airbag/airbag, airbag/automatic belt, airbag/manual belt and automatic belt/automatic belt) would be compared.

In addition, the agency analyzed the sensitivity of the fatality reduction estimates for the different restraint

systems to using three different assumptions about the level of safety belt usage for the driver and the right front passenger. The three different manual belt usage levels are: 1983 usage, which was used as the baseline estimate in the July 1984 Final Regulatory Impact Analysis (FRIA) on Standard No. 208, 1985 usage based on the agency's 19-city survey of belt usage, and 40 percent usage, which represents the low end of the range of belt law related usage estimated in the 1984 FRIA. The analysis shows that belt usage in cars with automatic belts for the driver and front right passenger must be above the 59-76 percent usage level in order to provide more benefits than cars equipped with a driver-side air bag system and a manual lap/shoulder belt for the passenger.

The analyses done by Ford, IIHS, and the agency all demonstrated that a driver-side, non-belt automatic restraint system combined with a manual lap/shoulder belt for the passenger provides substantial safety benefits. The analyses further show that safety belt usage in cars equipped with automatic safety belts for the driver and the passenger must be at or above 60 percent, before the benefits of that system exceed the benefits of a driver-only air bag. The IIHS and NHTSA analysis further show that, unless automatic safety belt use levels are extremely high, a driver and passenger side air bag system yields the greatest benefits of the systems analyzed. Thus, NHTSA has tentatively concluded that the projected benefits of a driver-side only air bag system warrant permitting that system beyond 1989 to permit the development of driver and passenger side air bag systems which, when used with manual lap/shoulder belts, promise to have even greater effectiveness in reducing deaths and injuries.

#### IV. Use of Driver-side Air Bags and Passenger-side Automatic Belts

In its request for additional information, NHTSA asked why Ford does not consider the option of driver-side air bags and passenger-side automatic belts to be viable. In its July 22 response, Ford identified two reasons why such a combination of automatic restraint systems is not viable. First, Ford reiterated its point that it does not have the engineering capability or resources to conduct parallel programs to design and develop two different automatic restraint systems for the passenger side. In addition, Ford raised the possibility of market resistance to such a combination; although Ford said it has not conducted consumer market research on this issue.

The agency requests comments from other manufacturers and equipment suppliers about their capability to pursue parallel automatic restraint programs. In addition, the agency is interested in learning of any market research conducted by manufacturers and others on the acceptability of a driver-side air bag and passenger-side automatic belt system.

#### *V. Specific Estimates of Air Bag Production*

As a part of its request for additional information, NHTSA asked Ford to provide specific estimates of the number of vehicles it intended to produce with driver-side air bag systems if the rule is amended and if the rule is not amended. NHTSA also asked Ford to provide the same information for vehicles equipped with passenger-side air bag systems. Since the estimates have to do with future production plans, the details of the estimates are confidential. The estimates do show that whether the petition is or is not adopted makes a significant difference in Ford's plans to provide driver and passenger-side air bag systems. NHTSA requests manufacturers commenting on this notice to provide volume estimates, by car line, of their future production plans for non-belt automatic restraint systems if the proposed extension of the one car credit is adopted and if it is not adopted. The agency also requests commenters to address the issue of whether adopting Ford's proposal would discourage any manufacturer from introducing full-front air bag systems earlier than 1993.

#### **Dynamic Testing of Manual Safety Belts**

In March 1986 (51 FR 9800), NHTSA adopted a requirement that if the automatic restraint standard is rescinded, then manual lap/shoulder belts installed in the front outboard seating positions of passenger cars must pass a dynamic 30 mph crash test. The requirement for dynamic testing will go into effect on September 1, 1989, if the automatic restraint requirement is rescinded.

Since today's notice proposes to allow the continued use of a manual lap/shoulder belt at the front right seating position in passenger cars equipped with a driver-side non-belt automatic restraint beyond September 1, 1989, the agency is proposing to require the manual lap/shoulder belts at that seat to be dynamically tested. The obvious benefit of such a requirement is that it would ensure that the manual lap/shoulder belts, if worn, in those cars would have to meet the same safety performance criteria applied to automatic belts installed in other

vehicles. Since the car will have to be crash tested to verify the compliance of the driver-side air bag system with the performance requirements of Standard No. 208, the incremental testing costs associated with conducting a dynamic test for the passenger-side manual belt should be minimal.

#### **Porsche/IIHS Petition for Two Car Credit**

In separate petitions filed last year, Dr. Ing h.c.F. Porsche (Porsche) and IIHS asked the agency to provide a two car credit during the phase-in period for passenger cars with driver and passenger-side air bag systems. They argued, among other things, that a two car credit would serve as an incentive for manufacturers to develop driver and passenger-side air bag systems and will provide manufacturers and vehicle owners with more widespread experience about those systems. In its petition, Porsche said that it was currently testing a driver and passenger air bag system for its 944 model.

The agency has decided to deny the two car credit petitions for several reasons. First, manufacturers that install a full-front air bag system can already receive a 1.5 car credit. Although Porsche has written the agency about the need for two car credit, neither Porsche nor any other manufacturer has provided detailed factual data specifically explaining how a two car credit would serve as an additional incentive to any manufacturer to change its production plans during the current phase-in period. Because of the leadtime requirements necessary to install driver and passenger-side air bag systems, any manufacturer that may currently be planning to offer driver and passenger side air bag systems would probably have already had to take the necessary steps and expend most of the resources to implement those plans. Nonetheless, NHTSA invites manufacturers to quantify any use they would make of a two credit provision. Should sufficient and convincing data be provided to refute the agency's beliefs, NHTSA will reconsider its denial of the petition.

In addition, the agency is concerned that a two car credit could serve as a disincentive toward producing substantial numbers of vehicles with air bag systems during the current phase-in. The possible disincentive resulting from a two car credit is that it would cut by 50 percent the number of cars a manufacturer would have to equip with automatic restraints during the current phase-in period. Since a manufacturer could produce substantially fewer cars to meet the phase-in requirements, there would be little incentive to produce

more air bag-equipped cars than absolutely necessary. In addition, because a two car credit would reduce by half the number of cars a manufacturer would have to equip with automatic restraints during the current phase-in, the agency is also concerned about the safety effects of that credit. Manufacturers and others are also invited to comment and present further analysis on these safety considerations.

The agency believes that if the Ford proposal to extend the availability of a one car credit is adopted for a limited time period, a two car credit, if permitted during the phase-in period, should not also be available beyond that time. Under the Ford proposal, every car manufactured after September 1, 1989, would have to contain automatic crash protection for the driver—the position most at risk. If the two car credit were also extended, a manufacturer would be able to produce some vehicles that would not have any automatic protection for the driver. Thus, even if NHTSA were to reverse its decision and propose to allow a two car credit during the phase-in period, it would not extend such credit beyond September 1, 1989. The agency notes that Porsche did not request a 2.0 car credit beyond September 1, 1989.

#### **Regulatory Impacts**

NHTSA has examined the impact of this rulemaking action and determined that it is not major within the meaning of Executive Order 12291, but is significant within the meaning of the Department of Transportation's regulatory policies and procedures. The agency has prepared a regulatory evaluation describing the economic and other impacts of this rulemaking action.

As discussed earlier in this notice, the regulatory evaluation shows that a driver-only air bag system can have substantial safety benefits. In fact, safety belt usage in cars equipped with automatic safety belts for the driver and the passenger must exceed 60 percent, before the benefits of that system equal the benefits of a driver-only air bag. The analysis further shows that automatic belt usage would have to be greater than 75 percent to exceed the benefits of a driver and passenger side air bag system. Thus, the agency believes that a temporary extension of the one car credit for driver-only systems will not have an adverse safety effect and will provide additional time for the orderly development and installation of driver and passenger air bag systems. Furthermore, the agency believes that the amendment proposed today can result in higher levels of safety. The

agency notes that vehicle manufacturers that are currently offering driver-only air bag systems are voluntarily installing lap/shoulder safety belts for the driver, even though they could install only a lap safety belt. The Final Regulatory Impact Analysis done for Secretary Dole's July 1984 occupant protection decision estimated that the combination of a lap/shoulder safety belt and an air bag system would provide the highest level of effectiveness in reducing fatal and moderate-to-critical injuries of all the restraint systems studied. The agency requests manufacturers considering the use of driver-only air bag systems to comment on whether the trend to use lap/shoulder safety belts with those systems will continue.

#### Regulatory Flexibility Act

NHTSA has also considered the impacts of this rulemaking action under the Regulatory Flexibility Act. I hereby certify that it would not have a significant economic impact on a substantial number of small entities. Accordingly, the agency has not prepared a full regulatory flexibility analysis.

Few, if any, passenger car manufacturers would qualify as small entities and the proposed change in the credit provision should not have a substantial effect on small manufacturers. The proposed changes would provide small and other manufacturers with additional leadtime to develop driver and passenger-side non-belt systems. The additional leadtime should have the effect of reducing a manufacturer's costs. Small organizations and governmental units should not be significantly affected since the potential cost reductions associated with the proposed change should be not be significant.

#### National Environmental Policy Act

NHTSA has analyzed this rulemaking action for the purposes of the National Environmental Policy Act. The agency has determined that implementation of this action will not have any significant impact on the quality of the human environment.

#### Paperwork Reduction Act

This rulemaking action does not contain any information collection requirements that must be submitted to the Office of Management and Budget pursuant to the requirements of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*).

#### List of Subjects in 49 CFR Part 571

Imports, Motor vehicle safety, Motor vehicles.

#### PART 571—[AMENDED]

In consideration of the foregoing, Part 571 of Title 49 of the Code of Federal Regulations is amended as follows:

1. The authority citation for Part 571 continues to read as follows:

Authority: 15 U.S.C. 1392, 1401, 1403, 1407; delegation of authority at 49 CFR 1.50.

2. In § 571.208, S4.1.4 is revised to read as follows:

#### § 571.208 Standard No. 208, Occupant crash protection.

S4.1.4 *Passenger cars manufactured on or after September 1, 1989.* Except as provided in S4.1.5, each passenger car manufactured on or after September 1, 1989, shall comply with the requirements of S4.1.2.1. Until September 1, 1993, each car whose driver's designated seating position complies with the requirements of S4.1.2.1(a) by means not including any type of seat belt and whose right front designated seating position is equipped with a manual Type 2 seat belt that meets S4.6 shall be counted as a vehicle complying with S4.1.2.1. A vehicle shall not be deemed to be in noncompliance with this standard if its manufacturer establishes that it did not have reason to know in the exercise of due care that such vehicle is not in conformity with the requirement of this standard.

Issued on November 20, 1986.  
Barry Felrice,

Associate Administrator for Rulemaking.  
[FR Doc. 86-26480 Filed 11-20-86; 11:22 am]  
BILLING CODE 4910-59-M

#### DEPARTMENT OF COMMERCE

#### National Oceanic and Atmospheric Administration

#### 50 CFR Part 672

#### Groundfish of the Gulf of Alaska; Availability of Amendment to Fishery Management Plan

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.

ACTION: Notice of availability of an amendment to a fishery management plan and request for comments.

SUMMARY: NOAA issues this notice that the North Pacific Fishery Management Council has submitted Amendment 15 to

the Fishery Management Plan for Groundfish of the Gulf of Alaska for Secretarial review and is requesting comments from the public. Copies of the amendments may be obtained from the address below.

DATE: Comments on the plan amendment will be accepted until January 10, 1987.

ADDRESS: All comments should be sent to Robert McVey, Director, Alaska Region, NMFS, P.O. Box 1668, Juneau, Alaska 99802. Copies of the amendment and the environmental assessment and the regulatory impact review/initial regulatory flexibility analysis are available upon request from the North Pacific Fishery Management Council, P.O. Box 103136, Anchorage, AK 99510.

#### FOR FURTHER INFORMATION CONTACT:

Ronald J. Berg (Fishery Biologist, National Marine Fisheries Service, Alaska Region), 907-586-7230.

SUPPLEMENTARY INFORMATION: The Magnuson Fishery Conservation and Management Act (16 U.S.C. 1801 *et seq.*) requires that each regional fishery management council submit any fishery management plan or plan amendment it prepares to the Secretary of Commerce (Secretary) for review and approval or disapproval. This act also requires that the Secretary, upon reviewing the plan or amendment, must immediately publish a notice that the plan or amendment is available for public review and comment. The Secretary will consider the public comments in determining whether to approve the plan or amendment.

Amendment 15 would (1) revise management goals and objectives; (2) establish an administrative framework procedure for setting annual harvest levels without plan amendment; (3) revise catch reporting requirements for at-sea processors; (4) establish four time/area closures effective for three years for non-pelagic trawling to protect king crab around Kodiak Island; and (5) expand the field order authority for making inseason adjustments of harvest quotas and bycatch limits. Regulations proposed by the North Pacific Fishery Management Council and based on this amendment are scheduled to be published within 15 days.

(16 U.S.C. 1801 *et seq.*)

Dated: November 20, 1986.

Richard B. Roe,

Director, Office of Fisheries Management, National Marine Fisheries Service.

[FR Doc. 86-26563 Filed 11-20-86; 8:45 am]

BILLING CODE 3510-22-M

# Notices

Federal Register

Vol. 51, No. 227

Tuesday, November 25, 1986

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

## DEPARTMENT OF COMMERCE

### International Trade Administration

[A-301-603]

#### Portland Hydraulic Cement (Including Cement Clinker) From Colombia; Initiation of Antidumping Duty Investigation

**AGENCY:** International Trade Administration, Import Administration, Department of Commerce.

**ACTION:** Notice.

**SUMMARY:** On the basis of a petition filed in proper form with the United States Department of Commerce, we are initiating an antidumping duty investigation to determine whether portland hydraulic cement and cement clinker (cement), from Colombia is being, or is likely to be, sold in the United States at less than fair value. We are notifying the United States International Trade Commission (ITC) of this action so that it may determine whether imports of this product are causing material injury, or threaten material injury, to a United States industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before December 15, 1986, and we will make ours on or before April 8, 1987.

**EFFECTIVE DATE:** November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:** Mary Clapp, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 377-1769.

#### SUPPLEMENTARY INFORMATION:

##### The Petition

On October 30, 1986, we received a petition in proper form filed by the American Cement Trade Alliance (ACTA). In compliance with the filing requirements of § 353.36 of the

Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from Colombia are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are causing material injury, or threaten material injury, to a United States industry.

Petitioner based foreign market value on the ex-factory home market price for portland hydraulic cement in Colombia, which is a price set by the Colombian Ministry of Economic Development. The price used for foreign market value in this investigation was set in April 1986.

Petitioner based United States price on the weighted-average f.o.b. import price for Colombian cement derived from Department of Commerce import statistics.

Based on the above comparison, petitioner alleges a dumping margin of 47.29 percent.

After analysis of petitioner's allegations and supporting data, we conclude that a formal investigation is warranted.

#### Initiation of Investigation

Under section 732(c) of the Act, we must determine, within 20 days after petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on cement and have found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether the merchandise subject to this investigation from Colombia is being, or is likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination no later than April 8, 1987.

#### Scope of Investigation

The products covered by this investigation are portland hydraulic grey cement, including clinker, provided for in the *Tariff Schedules of the United States Annotated (TSUSA)* items 511.1440 and 511.1420. Excluded from this investigation are white, non-staining

portland hydraulic cement provided for in TSUS item 511.11 and oil well cement provided for in TSUS item 511.14.

#### Notification of ITC

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will also allow the ITC access to all privileged and business proprietary information in our files, provided it confirms that it will not disclose such information either publicly or under administrative protective order without the consent of the Deputy Assistant Secretary for Import Administration.

#### Preliminary Determination by ITC

The ITC will determine by December 15, 1986, whether there is a reasonable indication that imports of the merchandise subject to this investigation from Colombia are causing material injury, or threaten material injury, to a United States industry. If its determination is negative, the investigation will terminate; otherwise, it will proceed according to the statutory procedures.

Gilbert B. Kaplan,  
Deputy Assistant Secretary for Import Administration.

[FR Doc. 86-26550 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-DS-M

[41-427-604]

#### Portland Hydraulic Cement (Including Cement Clinker) From France; Initiation of Antidumping Duty Investigation

**AGENCY:** International Trade Administration, Import Administration, Department of Commerce.

**ACTION:** Notice.

**SUMMARY:** On the basis of a petition filed in proper form with the United States Department of Commerce, we are initiating an antidumping duty investigation to determine whether portland hydraulic cement and cement clinker (cement), from France is being, or is likely to be, sold in the United States at less than fair value. We are notifying the United States International Trade Commission (ITC) of this action

so that it may determine whether imports of this product are causing material injury, or threaten material injury, to a United States industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before December 15, 1986, and we will make ours on or before April 8, 1987.

**EFFECTIVE DATE:** November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:** Mary Clapp, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone: (202) 377-1769.

**SUPPLEMENTARY INFORMATION:**

**The Petition**

On October 30, 1986, we received a petition in proper form filed by the American Cement Trade Alliance (ACTA). In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from France are being, or are likely to be, sold in the United States industry.

Petitioner based foreign market value on an ex-factory prices at which two major French producers have been selling portland hydraulic cement in France during 1986.

Petitioner based United States price on the basis of exporter's sales price (ESP) since a vast majority of imports of French cement were made by a related party. Petitioner derives the ESP of French cement by subtracting the costs of transporting the cement from the French factory to the U.S. importer's cement terminal and the costs of operating the terminal from the ex-terminal price.

Based on the above comparison, petitioner alleges dumping margins ranging from 96.65 percent to 105.21 percent.

After analysis of petitioner's allegations and supporting data, we conclude that a formal investigation is warranted.

**Initiation of Investigation**

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on cement and have found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with

section 732 of the Act, we are initiating an antidumping duty investigation to determine whether the merchandise subject to this investigation from France is being, or is likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination no later than April 8, 1987.

**Scope of Investigation**

The products covered by this investigation are portland hydraulic grey cement, including clinker, provided for in the *Tariff Schedules of the United States Annotated* (TSUSA) items 511.1440 and 511.1420. Excluded from this investigation are white non-staining portland hydraulic cement provided for in TSUS item 511.11 and oil well cement provided for in TSUS item 511.14.

**Notification of ITC**

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will also allow the ITC access to all privileged and business proprietary information in our files, provided it confirms that it will not disclose such information either publicly or under administrative protective order without the consent of the Deputy Assistant Secretary for Import Administration.

**Preliminary Determination by ITC**

The ITC will determine by December 15, 1986, whether there is a reasonable indication that imports of the merchandise subject to this investigation from France are causing material injury, or threaten material injury, to a United States industry. If its determination is negative, the investigation will terminate; otherwise, it will proceed according to the statutory procedures.

Gilbert B. Kaplan,  
Deputy Assistant Secretary for Import Administration.

[FR Doc. 86-26551 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-DS-M

[A-484-601]

**Portland Hydraulic Cement (Including Cement Clinker) From Greece: Initiation of Antidumping Duty Investigation**

**AGENCY:** International Trade Administration, Import Administration, Department of Commerce.

**ACTION:** Notice.

**SUMMARY:** On the basis of a petition filed in proper form with the United States Department of Commerce, we are initiating an antidumping duty investigation to determine whether portland hydraulic cement and cement clinker (cement), from Greece is being, or is likely to be, sold in the United States at less than fair value. We are notifying the United States International Trade Commission (ITC) of this action so that it may determine whether imports of this product are causing material injury, or threaten material injury, to a United States industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before December 15, 1986, and we will make ours on or before April 8, 1987.

**EFFECTIVE DATE:** November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:** Mary Clapp, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone: (202) 377-1769.

**SUPPLEMENTARY INFORMATION:**

**The Petition**

On October 30, 1986, we received a petition in proper form filed by the American Cement Trade Alliance (ACTA). In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from Greece are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are causing material injury, or threaten material injury, to a United States industry.

Petitioner based foreign market value on the reported ex-factory price of cement produced and sold in Greece to home market customers.

Petitioner based United States price on the weighted-average f.o.b. import price for Greek cement, derived from Department of Commerce import statistics.

Based on the above comparison, petitioner alleges a dumping margin of 81.29 percent.

After analysis of petitioner's allegations and supporting data, we conclude that a formal investigation is warranted.

**Initiation of Investigation**

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the

allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on cement and have found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether the merchandise subject to this investigation from Greece is being, or is likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination no later than April 8, 1987.

#### Scope of Investigation

The products covered by this investigation are portland hydraulic grey cement, including clinker, provided for in the *Tariff Schedules of the United States Annotated* (TSUSA) items 511.1440 and 511.1420. Excluded from this investigation are white, non-staining portland hydraulic cement provided for in TSUS item 511.11 and oil well cement provided for in TSUS item 511.14.

#### Notification of ITC

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will also allow the ITC access to all privileged and business proprietary information in our files, provided it confirms that it will not disclose such information either publicly or under administrative protective order without the consent of the Deputy Assistant Secretary for Import Administration.

#### Preliminary Determination by ITC

The ITC will determine by December 15, 1986, whether there is a reasonable indication that imports of the merchandise subject to this investigation from Greece are causing material injury, or threaten material injury, to a United States industry. If its determination is negative, the investigation will terminate; otherwise, it will proceed according to the statutory procedures.

Gilbert B. Kaplan,

Deputy Assistant Secretary for Import Administration.

[FR Doc. 86-26552 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-DS-M

[A-588-608]

### Portland Hydraulic Cement (Including Cement Clinker) From Japan; Initiation of Antidumping Duty Investigation

**AGENCY:** International Trade Administration, Import Administration, Department of Commerce.

**ACTION:** Notice.

**SUMMARY:** On the basis of a petition filed in proper form with the United States Department of Commerce, we are initiating an antidumping duty investigation to determine whether portland hydraulic cement and cement clinker (cement), from Japan is being, or is likely to be, sold in the United States at less than fair value. We are notifying the United States International Trade Commission (ITC) of this action so that it may determine whether imports of this product are causing material injury, or threaten material injury, to a United States industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before December 15, 1986, and we will make ours on or before April 8, 1987.

**EFFECTIVE DATE:** November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:** Mary Clapp, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 377-1769.

#### SUPPLEMENTARY INFORMATION:

##### The Petition

On October 30, 1986, we received a petition in proper form filed by the American Cement Trade Alliance (ACTA). In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from Japan are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are causing material injury, or threaten material injury, to a United States industry.

Petitioner based foreign market value on the delivered sales price of cement sold in bulk through the first channel of distribution in Japan. Deductions were made for foreign inland freight and handling charges.

Petitioner based United States price on the weighted-average f.o.b. import price for Japanese cement derived from Department of Commerce import statistics.

Based on the above comparison, petitioner alleges a dumping margin of 126.66 percent.

After analysis of petitioner's allegations and supporting data, we conclude that a formal investigation is warranted.

#### Initiation of Investigation

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on cement and have found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether the merchandise subject to this investigation from Japan is being, or is likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination no later than April 8, 1987.

#### Scope of Investigation

The products covered by this investigation are portland hydraulic grey cement, including clinker, provided for in the *Tariff Schedules of the United States Annotated* (TSUSA) items 511.1440 and 511.1420. Excluded from this investigation are white, non-staining portland hydraulic cement provided for in TSUS item 511.11 and oil well cement provided for in TSUS item 511.14.

#### Notification of ITC

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will also allow the ITC access to all privileged and business proprietary information in our files, provided it confirms that it will not disclose such information either publicly or under administrative protective order without the consent of the Deputy Assistant Secretary for Import Administration.

#### Preliminary Determination by ITC

The ITC will determine by December 15, 1986, whether there is a reasonable indication that imports of the merchandise subject to this investigation from Japan are causing material injury, or threaten material injury, to a United States industry. If its

determination is negative, the investigation will terminate; otherwise, it will proceed according to the statutory procedures.

Gilbert B. Kaplan,

*Deputy Assistant Secretary for Import Administration.*

[FR Doc. 86-26553 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-DS-M

[A-580-604]

**Portland Hydraulic Cement (Including Cement Clinker) From Korea; Initiation of Antidumping Duty Investigation**

**AGENCY:** International Trade Administration, Import Administration, Department of Commerce.

**ACTION:** Notice.

**SUMMARY:** On the basis of a petition filed in proper form with the United States Department of Commerce, we are initiating an antidumping duty investigation to determine whether portland hydraulic cement clinker (cement), from Korea is being, or is likely to be, sold in the United States at less than fair value. We are notifying the United States International Trade Commission (ITC) of this action so that it may determine whether imports of this product are causing material injury, or threaten material injury, to a United States industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before December 15, 1986, and we will make ours on or before April 8, 1987.

**EFFECTIVE DATE:** November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:** Mary Clapp, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 377-1769.

**SUPPLEMENTARY INFORMATION:**

**The Petition**

On October 30, 1986, we received a petition in proper form filed by the American Cement Trade Alliance (ACTA). In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from Korea are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are causing material injury, or threaten material injury, to a United States industry.

Petitioner based foreign market value of an ex-factory home market price of bulk general use cement sold in Korea.

Petitioner based United States price on the weighted-average f.o.b. import price for Korean cement derived from Department of Commerce import statistics.

Based on the above comparison, petitioner alleges a dumping margin of 68.17 percent.

After analysis of petitioner's allegations and supporting data, we conclude that a formal investigation is warranted.

**Initiation of Investigation**

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on cement and have found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether the merchandise subject to this investigation from Korea is being, or is likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination no later than April 8, 1987.

**Scope of Investigation**

The products covered by this investigation are portland hydraulic grey cement, including clinker, provided for in the *Tariff Schedules of the United States Annotated (TSUSA)* items 511.1440 and 511.1420. Excluded from this investigation are white non-staining portland hydraulic cement provided for in TSUS item 511.11 and oil well cement provided for in TSUS item 511.14.

**Notification of ITC**

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will also allow the ITC access to all privileged and business proprietary information in our files, provided it confirms that it will not disclose such information either publicly or under administrative protective order without the consent of the Deputy Assistant Secretary for Import Administration.

**Preliminary Determination by ITC**

The ITC will determine by December 15, 1986, whether there is a reasonable indication that imports of the merchandise subject to this investigation from Korea are causing material injury, or threaten material injury, to a United States industry. If its determination is negative, the investigation will terminate; otherwise, it will proceed according to the statutory procedures.

Gilbert B. Kaplan,

*Deputy Assistant Secretary for Import Administration.*

[FR Doc. 86-26554 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-DS-M

[A-201-602]

**Portland Hydraulic Cement (Including Cement Clinker) From Mexico; Initiation of Antidumping Duty Investigation**

**AGENCY:** International Trade Administration, Import Administration, Department of Commerce.

**ACTION:** Notice.

**SUMMARY:** On the basis of a petition filed in proper form with the United States Department of Commerce, we are initiating an antidumping duty investigation to determine whether portland hydraulic cement and cement clinker (cement), from Mexico is being, or is likely to be, sold in the United States at less than fair value. We are notifying the United States International Trade Commission (ITC) of this action so that it may determine whether imports of this product are causing material injury, or threaten material injury, to a United States industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before December 15, 1986, and we will make ours on or before April 8, 1987.

**EFFECTIVE DATE:** November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:** Mary Clapp, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 377-1769.

**SUPPLEMENTARY INFORMATION:**

**The Petition**

On October 30, 1986, we received a petition in proper form filed by the American Cement Trade Alliance (ACTA). In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36),

the petition alleged that imports of the subject merchandise from Mexico are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are causing material injury, or threaten material injury, to a United States industry.

Petitioner based foreign market value on reported ex-factory prices paid by Mexican customers for cement produced in Mexico.

Petitioner based United States price on the weighted-average f.o.b. import price for Mexican cement, derived from Department of Commerce import statistics.

Based on the above comparison, petitioner alleges dumping margins ranging from 25.21 percent to 69.20 percent.

After analysis of petitioner's allegations and supporting data, we conclude that a formal investigation is warranted.

#### Initiation of Investigation

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on cement and have found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether the merchandise subject to this investigation from Mexico is being, or is likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination no later than April 8, 1987.

#### Scope of Investigation

The products covered by this investigation are portland hydraulic grey cement, including clinker, provided for in the *Tariff Schedules of the United States Annotated* (TSUSA) items 511.1440 and 511.1420. Excluded from this investigation are white, non-staining portland hydraulic cement provided for in TSUS item 511.11 and oil well cement provided for in TSUS item 511.14.

#### Notification of ITC

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary

information. We will also allow the ITC access to all privileged and business proprietary information in our files, provided it confirms that it will not disclose such information either publicly or under administrative protective order without the consent of the Deputy Assistant Secretary for Import Administration.

#### Preliminary Determination by ITC

The ITC will determine by December 15, 1986, whether there is a reasonable indication that imports of the merchandise subject to this investigation from Mexico are causing material injury, or threaten material injury, to a United States industry. If its determination is negative, the investigation will terminate; otherwise, it will proceed according to the statutory procedures.

Gilbert B. Kaplan,

Deputy Assistant Secretary for Import Administration.

[FR Doc. 26555 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-DS-M

[A-469-603]

#### Portland Hydraulic Cement (Including Cement Clinker) From Spain; Initiation of Antidumping Duty Investigation

**AGENCY:** International Trade Administration, Import Administration, Department of Commerce.

**ACTION:** Notice.

**SUMMARY:** On the basis of a petition filed in proper form with the United States Department of Commerce, we are initiating an antidumping duty investigation to determine whether portland hydraulic cement and cement clinker (cement), from Spain is being, or is likely to be, sold in the United States at less than fair value. We are notifying the United States International Trade Commission (ITC) of this action so that it may determine whether imports of this product are causing material injury, or threaten material injury, to a United States industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before December 15, 1986, and we will make ours on or before April 8, 1987.

**EFFECTIVE DATE:** November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:** Mary Clapp, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 377-1769.

**SUPPLEMENTARY INFORMATION:**

#### The Petition

On October 30, 1986, we received a petition in proper form filed by the American Cement Trade Alliance (ACTA). In compliance with the filing requirements of § 353.36 of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from Spain are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are causing material injury, or threaten material injury, to a United States industry.

Petitioner based foreign market value on an ex-factory price of bulk general use cement sold in Spain, excluding charges for value-added tax.

Petitioner based United States price on the weighted-average f.o.b. import price for Spanish cement derived from Department of Commerce import statistics.

Based on the above comparison, petitioner alleges a dumping margin of 54.84 percent.

After analysis of petitioner's allegations and supporting data, we conclude that a formal investigation is warranted.

#### Initiation of Investigation

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on cement and have found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether the merchandise subject to this investigation from Spain is being, or is likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination no later than April 8, 1987.

#### Scope of Investigation

The products covered by this investigation are portland hydraulic grey cement, including clinker, provided for in the *Tariff Schedules of the United States Annotated* (TSUSA) items 511.1440 and 511.1420. Excluded from this investigation are white non-staining portland hydraulic cement provided for in TSUS item 511.11 and oil well cement provided for in TSUS item 511.14.

**Notification of ITC**

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will also allow the ITC access to all privileged and business proprietary information in our files, provided it confirms that it will not disclose such information either publicly or under administrative protective order without the consent of the Deputy Assistant Secretary for Import Administration.

**Preliminary Determination by ITC**

The ITC will determine by December 15, 1986, whether there is a reasonable indication that imports of the merchandise subject to this investigation from Spain are causing material injury, or threaten material injury, to a United States industry. If its determination is negative, the investigation will terminate; otherwise, it will proceed according to the statutory procedures.

Gilbert B. Kaplan,  
Deputy Assistant Secretary for Import  
Administration.

[FR Doc. 86-26556 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-DS-M

[A-307-601]

**Portland Hydraulic Cement (Including Cement Clinker) From Venezuela; Initiation of Antidumping Duty Investigation**

**AGENCY:** International Trade Administration, Import Administration, Department of Commerce.

**ACTION:** Notice.

**SUMMARY:** On the basis of a petition filed in proper form with the United States Department of Commerce, we are initiating an antidumping duty investigation to determine whether portland hydraulic cement and cement clinker (cement), from Venezuela is being, or is likely to be, sold in the United States at less than fair value. We are notifying the United States International Trade Commission (ITC) of this action so that it may determine whether imports of this product are causing material injury, or threaten material injury, to a United States industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before December 15, 1986, and we will make ours on or before April 8, 1987.

**EFFECTIVE DATE:** November 25, 1986.

**FOR FURTHER INFORMATION CONTACT:**

Mary Clapp, Office of Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 377-1769.

**SUPPLEMENTARY INFORMATION:****The Petition**

On October 30, 1986, we received a petition in proper form filed by the American Cement Trade Alliance (ACTA). In compliance with the filing requirements of § 353.36b of the Commerce Regulations (19 CFR 353.36), the petition alleged that imports of the subject merchandise from Venezuela are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are causing material injury, or threaten material injury, to a United States industry.

Petitioner based foreign market value on an ex-factory price of bulk general use cement sold in Venezuela.

Petitioner based United States price on the weighted-average f.o.b. import price for Venezuela cement derived from Department of Commerce import statistics.

Based on the above comparison, petitioner alleges a dumping margin of 97 percent.

After analysis of petitioner's allegations and supporting data, we conclude that a formal investigation is warranted.

**Initiation of Investigation**

Under section 732(c) of the Act, we must determine, within 20 days after a petition is filed, whether it sets forth the allegations necessary for the initiation of an antidumping duty investigation and whether it contains information reasonably available to the petitioner supporting the allegations.

We examined the petition on cement and have found that it meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether the merchandise subject to this investigation from Venezuela is being, or is likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination no later than April 8, 1987.

**Scope of Investigation**

The products covered by this investigation are portland hydraulic grey cement, including clinker, provided for

in the *Tariff Schedules of the United States Annotated* (TSUSA) items 511.1440 and 511.1420. Excluded from this investigation are white non-staining portland hydraulic cement provided for in TSUS item 511.11 and oil well cement provided for in TSUS item 511.14.

**Notification of ITC**

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will also allow the ITC access to all privileged and business proprietary information in our files, provided it confirms that it will not disclose such information either publicly or under administrative protective order without the consent of the Deputy Assistant Secretary for Import Administration.

**Preliminary Determination by ITC**

The ITC will determine by December 15, 1986, whether there is a reasonable indication that imports of the merchandise subject to this investigation from Venezuela are causing material injury, or threaten material injury, to a United States industry. If its determination is negative, the investigation will terminate; otherwise, it will proceed according to the statutory procedures.

Gilbert B. Kaplan,  
Deputy Assistant Secretary for Import  
Administration.

[FR Doc. 86-26557 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-DS-M

**Semiconductor Technical Advisory Committee; Partially Closed Meeting**

**SUMMARY:** The Semiconductor Technical Advisory Committee was initially established on January 3, 1973, and rechartered on January 10, 1986 in accordance with the Export Administration Act of 1979 and the Federal Advisory Committee Act.

**DATE:** Time and place: December 16, 1986 at 9:30 a.m., Herbert C. Hoover Building, Room 6802, 14th Street and Constitution Ave., NW., Washington, DC.

**Agenda****General Session**

1. Opening remarks by the Chairman.
2. Presentation of papers or comments by the public that relate to general semiconductor export issues or specifically Export Commodity Control

Numbers (ECCN) 1544A; 1545A; 1547A; 1548A; 1564A; 1757; 1354A, and 1355A.

3. The Committee is particularly interested in receiving public comments/suggestions concerning exports of semiconductor test equipment, presently embargoed under ECCN 1355A, Subitem (b)(7).

4. Action items underway.

5. New Business.

6. Action items due at next meeting.

#### Executive Session

7. Discussion of matters properly classified under Executive Order 12356, dealing with the U.S. and COCOM control program and strategic criteria related thereto.

#### Public Participation

The General Session will be open to the public and a limited number of seats will be available. To the extent time permits members of the public may present oral statements to the Committee. Written statements may be submitted at any time before or after the meeting.

**SUPPLEMENTARY INFORMATION:** A Notice of Determination to close meetings or portions of meetings of the Committee to the public on the basis of 5 U.S.C. 552b(c)(1) was approved on January 10, 1986, in accordance with the Federal Advisory Committee Act. A copy of the Notice is available for public inspection and copying in the Central Reference and Records Inspection Facility, Room 6628, U.S. Department of Commerce, telephone: 202-377-4217. For further information or copies of the minutes call 202-377-2583.

Dated: November 19, 1986.

Margaret A. Cornejo,

Director, Technical Support Staff Office of Technology and Policy Analysis.

[FR Doc. 86-28533 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-DT-M

#### National Oceanic and Atmospheric Administration

##### North Pacific Fishery Management Council; Public Meetings

**AGENCY:** National Marine Fisheries Service, NOAA, Commerce.

The North Pacific Fishery Management Council and its advisory bodies will convene public meetings, December 9-12, 1986, at the Sheraton Anchorage Hotel, Anchorage, AK. On December 9, the Council will convene at 9 a.m. to make final decisions on groundfish harvest levels for 1987 and apportionments to U.S. and foreign fisheries. There also will be a major review of foreign allocations, vessel

permits, and joint ventures for 1987. The Council will consider and approve nominations to its Advisory Panel (AP), Scientific and Statistical Committee (SSC), and fishery management plan teams. Other items on the agenda include reports on a domestic observer program; reflagging of foreign processing vessels, and permits and reporting requirements for U.S. transport and support vessels. The Council also will hear a report on crab management from an industry/Council workgroup and consider recommendations for further action, as well as choose a contractor for a groundfish management study. The Council will meet in executive session (not open to the public) at least once during the week, to review ongoing litigation, personnel matters and other appropriate matters. The Council's meeting may continue into December 13, if necessary. The Council's Permit Review Committee, AP, and SSC are scheduled to convene on December 7, at 1:30 p.m. Other plan team and workgroup meetings may be held on short notice during the week.

The Council's Advisory Panel Nominating Committee will convene a closed session (not open to the public) on December 10 and the Council's SSC will convene a closed session, sometime during the meeting week to discuss personnel matters and prepare recommendations for Council review and approval.

For more information contact Jim H. Branson, Executive Director, North Pacific Fishery Management Council, P.O. Box 103136, 411 West Fourth Avenue, Suite 2D, Anchorage, AK; telephone: (907) 274-4563.

Dated: November 20, 1986.

Richard B. Roe,

Director, Office of Fisheries Management, National Marine Fisheries Service.

[FR Doc. 86-28584 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-22-M

##### Pacific Fishery Management Council; Public Meeting

**AGENCY:** National Marine Fisheries Service, NOAA, Commerce.

A special public meeting of Pacific Fishery Management Council advisors will convene December 2, 1986, at 9 a.m. at the Council's office (Room 180, address below), to review Oregon production index area coho abundance estimation methods. The special advisory group consists of the Council's Salmon Plan Development Team and selected members of the Scientific and Statistical Committee who will begin reviewing information on two different

methodologies used by the Council to estimate coho abundance in the Oregon production index area. Recommendations developed at this and subsequent meetings will be provided to the Council in March to help guide ocean management for 1987. For further information contact Joseph C. Greenley, Executive Director, Pacific Fishery Management Council, Metro Center, 2000 S.W. First Avenue, Suite 420, Portland OR 97201; telephone: (503) 221-6352.

Dated: November 20, 1986.

Richard B. Roe,

Director, Office of Fisheries Management, National Marine Fisheries Service.

[FR Doc. 86-28565 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-22-M

#### National Technical Information Service

##### Price Change Notification

**AGENCY:** National Technical Information Service, Commerce.

**ACTION:** Price change notification.

**SUMMARY:** This is to advise National Technical Information Service (NTIS) customers of planned price increases for calendar year 1987. Effective January 1, 1987, price increases will occur in some product areas. Paper copy and microfiche reports, selected subscription/standing order products, diskettes and magnetic tapes are the products affected by the increase.

Inquiries regarding this price notification, or price changes for other agency subscription and standing order products should be directed to Mr. Walter Finch, Acting Associate Director, Office of Program and Product Management, NTIS, Springfield, VA 22161, (703) 487-4805.

The following list details most of the price changes. North American prices are for customers in the United States, Canada and Mexico. Foreign prices are for all other customers.

#### 1987 PRICE SCHEDULE

[Effective Jan. 1, 1987]

Price code	Domestic price	Foreign price
<b>Microfiche and Paper Copy</b>		
MF A01.....	\$6.50	\$13.00
PC A02.....	9.95	19.90
A03.....	11.95	23.90
A04-A05.....	13.95	27.90
A06-A09.....	18.95	37.90
A10-A13.....	24.95	49.90
A14-A17.....	30.95	61.90
A18-A21.....	36.95	73.90
A22-A25.....	42.95	85.90
A99.....	( )	( )

## 1987 PRICE SCHEDULE—Continued

[Effective Jan. 1, 1987]

Price code	Domestic price	Foreign price
<b>Magnetic Tapes</b>		
T01.....	150	300
T02.....	175	350
T03.....	300	600
T04.....	400	800
T05.....	500	1,000
T06.....	600	1,200
T07.....	700	1,400
T08.....	800	1,600
T09.....	900	1,800
T10.....	1,000	2,000
T11.....	1,100	2,200
T12.....	1,200	2,400
T13.....	1,300	2,600
T14.....	1,400	2,800
T15.....	1,500	3,000
T16.....	1,600	3,200
T17.....	1,700	3,400
T18.....	1,800	3,600
T19.....	1,900	3,800
T99.....	(1)	(1)
<b>Diskette Products</b>		
D01.....	50	100
D02.....	75	150
D03.....	125	250
D04.....	175	350
D05.....	225	450
D06.....	275	550
D07.....	325	650
D08.....	375	750
D09.....	425	850
D10.....	475	950
D11.....	525	1,050
D12.....	575	1,150
D13.....	625	1,250
D14.....	675	1,350
D15.....	725	1,450
D16.....	775	1,550
D17.....	825	1,650
D18.....	875	1,750
D19.....	925	1,850
D99.....	(1)	(1)

<sup>1</sup> Note—Contact NTIS for price quote.

David B. Frances,

Director, Office of Administrative Management.

[FR Doc. 86-26487 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-04-M

**COMMITTEE FOR THE IMPLEMENTATION OF TEXTILE AGREEMENTS****Import Limits for Certain Wool and Man-Made Fiber Textile Products Produced or Manufactured in Thailand**

November 19, 1986.

The Chairman of the Committee for the Implementation of Textile Agreements (CITA), under the authority contained in E.O. 11651 of March 3, 1972, as amended, has issued the directive published below to the Commissioner of Customs to be effective on November 19, 1986. For further information contact Kathy Davis, International Trade Specialist, Office of Textiles and Apparel, U.S. Department of Commerce, (202) 377-4212. For information on the quota status of these limits, please refer to the Quota Status Reports which are

posted on the bulletin boards of each Customs port. For information on embargoes and quota re-openings, please call (202) 377-3715.

**Background**

The Governments of the United States and Thailand have agreed in consultations held in October 1986 to further amend their Bilateral Cotton, Wool and Man-Made Fiber Textile Agreement of July 27 and August 8, 1983, as previously amended and extended, to increase the restraint limit established for wool textile products in Categories 410-429 and 431-459, as a group, for special carryforward to 2,129,165 square yards and that for polypropylene bags in part of Category 669 (only TSUSA number 385.5300), to 1,004,350 pounds, produced or manufactured in Thailand and exported, in the case of the wool group, during the thirteen-month period which began on December 1, 1985 and extends through December 31, 1986, and in the case of Category 669 pt., during the four-month period which began on September 1, 1986 and extends through December 31, 1986.

In the letter which follows this notice the Chairman of CITA directs the Commissioner of Customs to increase these specific limits to the designated amounts.

A description of the textile categories in terms of T.S.U.S.A. numbers was published in the *Federal Register* on December 13, 1982 (47 FR 55709), as amended on April 7, 1983 (48 FR 15175), May 3, 1983 (48 FR 19924), December 14, 1983, (48 FR 55607), December 30, 1983 (48 FR 57584), April 4, 1984 (49 FR 13397), June 28, 1984 (49 FR 26622), July 16, 1984 (49 FR 28754), November 9, 1984 (49 FR 44782), and in Statistical Headnote 5, Schedule 3 of the Tariff Schedules of the United States Annotated (1986).

William H. Houston III,

Chairman, Committee for the Implementation of Textiles Agreements.

**Committee For The Implementation of Textile Agreements**

November 19, 1986.

Commissioner of Customs,  
Department of the Treasury,  
Washington, DC 20229.

Dear Mr. Commissioner: This directive amends, but does not cancel, the directives of November 27, 1985, as previously amended, and the directive of November 3, 1986 which established limits for certain categories of cotton, wool and man-made fiber textiles and textile products, produced or manufactured in Thailand and exported during the agreement year which began on January 1, 1986.

Effective on November 19, 1986, the directives of November 27, 1985 and

November 3, 1986, are hereby amended to increase the following limits:

Category	Restraint limit <sup>1</sup>	Date of export period
410-429 and 431-459, as a group 669 pt. <sup>2</sup>	2,129,165 square yards equivalent 1,004,350 pounds.	Sept. 1 to Dec. 1, 1985 to Dec. 31, 1986, Dec. 31, 1986.

<sup>1</sup> The limits have not been adjusted to account for any imports exported after November 30, 1985, or August 31, 1986, as applicable.

<sup>2</sup> In Category 669, only TSUSA number 385.5300.

The Committee for the Implementation of Textile Agreements has determined that these actions fall within the foreign affairs exception to the rulemaking provisions of 5 U.S.C. 553.

William H. Houston III,

Chairman, Committee for the Implementation of Textile Agreements.

[FR Doc. 86-26534 Filed 11-24-86; 8:45 am]

BILLING CODE 3510-DR-M

**Adjustment of Import Restraint Limits for Certain Wool Textile Products Produced or Manufactured in the Socialist Federal Republic of Yugoslavia**

November 19, 1986.

The Chairman of the Committee for the Implementation of Textile Agreements (CITA), under the authority contained in E.O. 11651 of March 3, 1972, as amended, has issued the directive published below to the Commissioner of Customs to be effective on November 26, 1986. For further information contact Kathryn Cabral, International Trade Specialist, Office of Textiles and Apparel, U.S. Department of Commerce, (202) 377-4212. For information on the quota status of these limits, please refer to the Quota Status Reports which are posted on the bulletin boards of each Customs port. For information on embargoes and quota re-openings, please call (202) 377-3715.

**Background**

A CITA directive of December 20, 1985 (50 FR 52824) established a limit for certain wool textile products in Category 435 (wool coats), produced or manufactured in Yugoslavia and exported during the twelve-month period which began on January 1, 1986 and extends through December 31, 1986.

Under the terms of the Bilateral Wool and Man-Made Fiber Textile Agreement of October 26 and 27, 1978, as amended and extended, between the Governments of the United States and the Socialist Federal Republic of Yugoslavia, and at the request of the Government of the Socialist Federal Republic of Yugoslavia, the limit for Category 435 is being increased by the application of swing and carryover, increasing it from 37-875 dozen to 43,935 dozen for goods exported during the current agreement year.

The unadjusted limit for Category 435 has been filled. The limits for Categories 433 and 444 are being reduced to 6,323 dozen (Category 433) and 6,500 dozen (Category 444) to account for the swing applied in Category 435.

A description of the cotton, wool and man-made fiber textile categories in terms of T.S.U.S.A. numbers was published in the *Federal Register* on December 13, 1982 (47 FR 55709), as amended on April 7, 1983 (48 FR 15175), May 3, 1983 (48 FR 19924), December 14, 1983 (48 FR 55807), December 30, 1983 (48 FR 57584), April 4, 1984 (49 FR 13397), June 28, 1984 (49 FR 26622) July 16, 1984 (49 FR 28754), November 9, 1984 (49 FR 44782), and in Statistical Headnote 5, Schedule 3 of the Tariff Schedules of the United States Annotated (1986).

**William H. Houston III,**  
*Chairman, Committee for the Implementation of Textile Agreements.*

**Committee for the Implementation of Textile Agreements**

November 19, 1986.

Commissioner of Customs,  
*Department of the Treasury*  
Washington, DC 20229.

Dear Mr. Commissioner: This directive further amends, but does not cancel, the directive issued to you on December 20, 1985 from the Chairman, Committee for the Implementation of Textile Agreements, concerning imports into the United States of certain cotton, wool, and man-made fiber textile products, produced or manufactured in Yugoslavia and exported during the twelve-month period which began on January 1, 1986 and extends through December 31, 1986.

Effective on November 26, 1986, the directive of December 20, 1985 is hereby further amended to adjust the previously established restraint limits for wool textile products in Category 433, 435 and 444, pursuant to the bilateral agreement of October 26 and 27, 1978, as amended and extended, between the Governments of the United States and the Socialist Federal Republic of Yugoslavia:<sup>1</sup>

<sup>1</sup> The bilateral agreement provides, among other things, that: (1) Within the group limit the specific limit may be exceeded by certain designated percentages in any agreement period; and (2) the

Category	Adjusted 12-month limit <sup>1</sup>
433.....	6,323 dozen.
435.....	43,935 dozen.
444.....	6,500 dozen.

<sup>1</sup> The limits have not been adjusted to account for any imports exported after December 31, 1985.

The Committee for the Implementation of Textile Agreements has determined that these actions fall within the foreign affairs exception to the rulemaking provisions of 5 U.S.C. 553(a)(1).

Sincerely,

**William H. Houston III,**  
*Chairman, Committee for the Implementation of Textile Agreements.*  
[FR Doc. 86-26535 Filed 11-24-86; 8:45 am]  
BILLING CODE 3510-DR-M

## DEPARTMENT OF DEFENSE

### Graduate Medical Education Advisory Committee; Open Meeting

**AGENCY:** Department of Defense Graduate Medical Education Advisory Committee.

**ACTION:** Notice of open meeting.

**SUMMARY:** Pursuant to the Provisions of Pub. L. 92-463, notice is hereby given that an open meeting of the Department of Defense Graduate Medical Education Advisory Committee has been scheduled as follows:

**DATE:** December 19, 1986, 8:00 a.m. to 5:00 p.m.

**ADDRESS:** Sheraton National Hotel, Columbia Pike and Washington Boulevard, Arlington, Virginia.

**FOR FURTHER INFORMATION CONTACT:** Lieutenant Colonel Michael Herndon, Executive Secretary, DoD Graduate Medical Education Advisory Committee, Office of the Assistant Secretary of Defense (Health Affairs), Room 3E346, the Pentagon, Washington, DC 20301 (202) 694-5355.

**SUPPLEMENTARY INFORMATION:** This will be the seventh meeting of the Committee. Presentation of the services selection results for AY 87 will be made. Subcommittee reports will be provided on these topics: (1) Options for achieving required end-strength goals (2) civilian academic involvement in military GME, and (3) skill maintenance

group limit may be exceeded for carryover and carryforward not to exceed 11 percent of the applicable limit.

requirements for active and reserve component physicians.

**Linda M. Lawson,**  
*Alternate OSD Federal Register, Liaison Officer, Department of Defense.*  
November 20, 1986.  
[FR Doc. 86-26503 Filed 11-24-86; 8:45 am]  
BILLING CODE 3810-01-M

## Office of the Secretary

### Defense Advisory Committee on Military Personnel Testing

Pursuant to Pub. L. 92-463, notice is hereby given that a meeting of the Defense Advisory Committee on Military Personnel Testing is scheduled to be held from 8:30 am to 5:00 pm on 5-6 December 1986. The meeting will be held at the La Mansion Del Rio Hotel, 112 College Street, San Antonio, Texas 78205. The purpose of the meeting is to review the Department of Defense's computer adaptive testing efforts and equating plans for the Armed Services Vocational Aptitude Battery Forms 15, 16 and 17. Persons desiring to make oral presentations or submit written statements for consideration at the Committee meeting must contact Dr. A.R. Lancaster, Executive Secretary, Defense Advisory Committee on Military Personnel Testing, Office of the Assistant Secretary of Defense (Force Management and Personnel), Room 2B271, the Pentagon, Washington, DC 20301-4000, telephone (202) 697-9271 no later than 22 November 1986.

**Linda M. Lawson,**  
*Alternate OSD Federal Register Liaison Officer, Department of Defense.*  
November 19, 1986.  
[FR Doc. 86-26502 Filed 11-24-86; 8:45 am]  
BILLING CODE 3810-01-M

## DEPARTMENT OF ENERGY

### Energy Information Administration

#### Agency Collections Under Review by the Office of Management and Budget

**AGENCY:** Energy Information Administration.

**ACTION:** Notice of submission of request for clearance to the Office of Management and Budget.

**SUMMARY:** The Department of Energy (DOE) has submitted the energy information collections listed at the end of this notice to the Office of Management and Budget (OMB) for approval under provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35).

The listing does not contain information collection requirements contained in regulations which are to be submitted under 3504(h) of the Paperwork Reduction Act, nor management and procurement assistance requirements collected by DOE.

Each entry contains the following information and is listed by the DOE sponsoring office: (1) The collection number(s); (2) Collection title; (3) Type of request, e.g., new, revision, or extension; (4) Frequency of collection; (5) Response obligation, i.e., mandatory, voluntary, or required to obtain or retain benefit; (6) Affected public; (7) An estimate of the number of respondents annually; (8) Annual respondent burden, i.e., an estimate of the total number of

hours needed to respond to the collection; and (9) A brief abstract describing the proposed collection and, briefly, the respondents.

**DATES:** Comments must be filed within 30 days of publication of this notice. Last notice published Friday, October 31, 1986, (51 FR 39789).

**ADDRESS:** Address comments to Mr. Vartkes Broussalian, Department of Energy Desk Officer, Office of Management and Budget, 726 Jackson Place NW., Washington, DC 20503. (Comments may also be addressed to, and copies of the submissions obtained from, Mr. Gross at the address below.)

**FOR FURTHER INFORMATION CONTACT:** John Gross, Director, Data Collection Services Division (EI-73), Energy

Information Administration, M.S. 1H-023, Forrestal Building, 1000 Independence Ave. SW, Washington, DC 20585, (202) 252-2308.

**SUPPLEMENTARY INFORMATION:** If you anticipate commenting on a collection, but find that time to prepare these comments will prevent you from submitting comments promptly, you should advise Mr. Broussalian of your intent as early as possible.

**Statutory Authority:** (Sec. 13(b), 5(b), 5(a), and 52, Pub. L. 93-275, Federal Energy Administration Act of 1974, (15 U.S.C. 772(b), 764(b), 764(a), and 790(a)).

Issued in Washington, DC, November 18, 1986.

**Yvonne M. Bishop,**

*Director, Statistical Standards, Energy Information Administration.*

#### DOE COLLECTIONS UNDER REVIEW BY OMB

Collection number	Collection title	Type of request	Response frequency	Response obligation	Affected public	Number of respondents annually	Respondent burden HRS annually	Abstract
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
FERC FERC-574 .....	Gas pipeline certificate— Hinshaw Exemption.	Extension.....	On occasion.....	Required to obtain or obtain a benefit.	Businesses or other for profit.	5	1,227	The FERC-574 data is used by the Commission in assessing applications for exemption from certain provisions of the NGA by companies engaging in the transportation or sale for resale of natural gas in interstate commerce.

[FR Doc. 86-26571 Filed 11-24-86; 8:45 am]  
BILLING CODE 6450-01-M

### Federal Energy Regulatory Commission

[Docket Nos. ER87-109-000, et al.]

#### Electric Rate and Corporate Regulation Filings; Arkansas Power & Light Company, et al.

November 20, 1986.

Take notice that the following filings have been made with the Commission:

#### 1. Arkansas Power & Light Company

[Docket No. ER87-109-000]

Take notice that on November 17, 1986 Arkansas Power & Light Company (AP&L) tendered for filing an amendment dated November 6, 1986 to the Letter Agreement of December 9, 1983 (ER84-193-000) between AP&L and the Louisiana Energy & Power Authority. The amendment provides for an extension of the term of the Letter Agreement through December 31, 1987 and has no impact on rate, contract capacity or revenue.

AP&L requests that the Commission waive any requirements with which AP&L has not already complied.

Comment date: December 4, 1986, in

accordance with Standard Paragraph E at the end of this notice.

#### 2. Central Illinois Public Service Company

[Docket No. ER87-101-000]

Take notice that on November 13, 1986, Central Illinois Public Service Company ("CIPS") tendered for filing amended Rate Schedule W-2 (Greenup) for Wholesale Electric Service to the City of Greenup for Distribution and Retail Sale to Its Customers ("Rate Schedule W-2 (Greenup)"). CIPS also tendered for filing separate amendments to the supply contracts between CIPS and the Cities of Greenup, Metropolis and Flora.

The tendered rate schedule and amendments to supply contracts comprise integral parts of comprehensive between CIPS and three cities, reached after negotiations, to continue and extend their long-term customer-supplier relationships.

CIPS requests a waiver of the Commission's notice requirements to implement the effective dates agreed to by the parties.

Comment date: December 3, 1986, in accordance with Standard Paragraph E at the end of this document.

#### 3. Central Maine Power Company

[Docket No. ER87-85-000]

Take notice that Central Maine Power ("CMP") on November 6, 1986 tendered for filing a Transmission Service Agreement between Unitil Power Corporation ("Unitil") and CMP. Assuming transmission of 26,000 kilowatts under the Agreement during the initial twelve-month period of service ending October 1987, CMP would receive approximately \$411,840 in revenues during the first year of the service.

Under the Agreement, CMP will provide transmission service to Unitil for up to 30,000 kilowatts per year; payment will be on the basis of a demand charge. Copies of the filing have been served on Unitil Power Corporation and on the Maine Public Utilities Commission.

Comment date: December 3, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 4. Consolidated Edison Company of New York, Inc.

[Docket No. ER85-459-001]

Take notice that on October 29, 1986, Consolidated Edison Company of New York, Inc. (Con. Edison) tendered for filing Supplement No. 2 to its Electric

Rate Schedule FERC No. 75 (PASNY No. 3), for transmission, distribution and delivery service to the Power Authority of the State of New York (PASNY). Supplement No. 2 would decrease base revenues from jurisdictional service to PASNY under Schedule 75 by \$1,029,535 annually based on the twelve-month period ended June 30, 1986.

The rate decrease proposed in Supplement No. 2 is in accordance with the rate determination of the New York Public Service Commission (NYPSC) on October 14, 1986, in Opinion No. 86-25 in which the NYPSC acted as arbiter of the rates to be charged under Schedule No. 75. Con Edison proposes to make the rate decrease to PASNY effective as of October 24, 1986 to coincide with the effective date of the rate decrease authorized by NYPSC. The NYPSC also ordered Con Edison to make refunds with interest to PASNY to reflect the NYPSC's rate determination as to all service rendered under Schedule No. 75 from July 1, 1985 *i.e.*, the date service was instituted under Schedule No. 75.

Comment date: December 3, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 5. Florida Power & Light Company

[Docket No. ER87-79-000]

Take notice that Florida Power & Light Company (FPL), on November 3, 1986, tendered for filing as an initial rate schedule a Short Term Agreement To Provide Power and Energy By Florida & Light Company to Utilities Commission, City of New Smyrna Beach, Florida and Cost Support Schedules B-3, C, D, E, F, and G (together with Cost Support Schedule F Supplements) which support the rates for sales under the Short-Term Agreement.

The new rate schedule provides for the sale of power and energy from FPL to the Utilities Commission, City of New Smyrna Beach, Florida for a specified term of December 1, 1986 to December 31, 1989. FPL respectfully requests that the proposed Short-Term Agreement and Cost Support Schedules B-3, C, D, E, F, and G (together with Cost Support Schedule F Supplements) be made effective December 1, 1986 and therefore requests waiver of the Commission's notice requirements. According to FPL, a copy of this filing was served upon the Utilities Commission, City of New Smyrna Beach, Florida and the Florida Public Service Commission.

Comment date: December 3, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 6. Mississippi Power & Light Company

[Docket No. ER87-91-000]

Take notice that Mississippi Power and Light Company (MP&L), on November 10, 1986, tendered for filing a letter agreement for sale of energy to the Tennessee Valley Authority.

MP&L requests an effective date of October 1, 1986 for the letter agreement. MP&L requests waiver of the Commission's notice requirements under Section 31.11 of the Commission's Regulations.

Comment date: December 3, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 7. Pacific Gas and Electric Company

[Docket No. ER87-104-000]

Take notice that on October 20, 1986, Pacific Gas and Electric Company (PG and E) tendered for filing certain changes in the rates, revenues, terms and conditions covering services rendered by PG and E to Northern California Power Agency, CPNational Corporation, Resort Improvement District No. 1, City of Redding, California and Shasta Dam Area Public Utility District. PG and E states in its letter accompanying the filing that the filing in this docket is made in order to meet certain requirements contained in settlement agreements approved by the Commission in prior dockets ER86-107-001 and ER86-107-002. Notice of this filing was earlier issued under the docket number ER86-107-004. The filing has been given a new docket number and is being noticed under that docket number at this time.

Comment date: December 3, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 8. Public Service Company of New Mexico

[Docket No. ER85-608-001]

Take notice that on October 23, 1986, Public Service of New Mexico (PMN) tendered for filing a report regarding pre-commercial energy from Palo Verde Nuclear Generating Station (PVNGS) Unit 2 as required by the Commission's September 6, 1985, order. This report is the second of three which are due within thirty days of the ending of testing of each of PVNGS units. PNM states that this report is presented to show the amount and disposition of test energy produced from PVNGS Unit 2.

Comment date: December 3, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### Standard Paragraphs

E. Any person desiring to be heard or to protest said filing should file a motion

to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's rules of practice and procedure (18 CFR 385.211 and 385.214). All such motions or protests should be filed on or before the comment date. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,  
*Secretary.*

[FR Doc. 86-26527 Filed 11-24-86; 8:45 am]

BILLING CODE 6717-01-M

[Docket Nos. ER87-105-000, et al.]

#### Electric Rate and Corporate Regulation Filings; Appalachian Power Co. et al.

November 19, 1986.

Take notice that the following filings have been made with the Commission:

##### 1. Appalachian Power Company

[Docket No. ER87-105-000]

Take notice that on November 14, 1986, Appalachian Power Company (APCO) tendered for filing proposed changes in its Electric Service Rate Schedule FPC No. 23 applicable to service to Kingsport Power Company. The proposed rate changes would increase revenues from jurisdiction sales and service by \$577,591 based upon the twelve-month period ending December 31, 1987. APCO proposes that the rates and charges which are revised by this filing become effective January 13, 1987.

The proposed rate schedule changes are designed to reflect general increases in the cost of providing electric service and to incorporate the effects of the material provisions of the Tax Act of 1986.

Copies of the filing were served upon Kingsport Power Company and the Tennessee Public Service Commission.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this document.

##### 2. Appalachian Power Company

[Docket No. ER87-106-000]

Take notice that on November 14, 1986, Appalachian Power Company (APCO) tendered for filing proposed

changes in its F.E.R.C. Rate Schedules for Service to its twenty-three wholesale customers in the States of Virginia and West Virginia. The proposed rate changes would increase revenues from jurisdictional sales and service by \$4,879,617 based upon the twelve-month period ending December 31, 1987. APCO proposes that the rates and charges which are revised by this filing become effective January 13, 1987.

The proposed rate schedule changes are designed to reflect general increases in the cost of providing electric service, to incorporate the effects of the material provisions of the Tax Reform Act of 1986, and to reflect the effects of capacity and energy allocated to the Company's six municipal customers by the Southeastern Power Administration from government hydro generating facilities.

Copies of the filing were served upon APCO's jurisdictional customers and the Virginia State Corporation Commission and the Public Service Commission of West Virginia.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

### 3. Boston Edison Company

[Docket No. ES87-11-000]

Take notice that on November 12, 1986, Boston Edison Company (Applicant), of Boston, Massachusetts, filed an application pursuant to section 204 of the Federal Power Act, seeking an order authorizing the issuance of \$200,000,000 short-term debt on or before December 31, 1988, with a final maturity date no later than December 31, 1989.

Comment date: December 11, 1986, in accordance with Standard Paragraph E at the end of this notice.

### 4. Carolina Power & Light Company

[Docket Nos. EL86-49-000 and ER87-102-000]

Take notice that on November 14, 1986, Carolina Power & Light Company (CP&L) tendered for filing a revised Resale Fuel Adjustment Clause, Rider No. 85E (11th Revised Sheet No. 8, 11th Revised Sheet No. 8A and 3rd Revised Sheet No. 8B of the Company's FPC Electric Tariff, First Revised Volume No. 1). CP&L states that the purpose of this filing is to allow it to pass through in its fuel adjustment clause the actual cost of nuclear fuel used to produce test energy from Unit #1 of the Shearon Harris Nuclear Power Plant, which is scheduled to begin precommercial operation in December 1986. CP&L had earlier made a filing in this connection which was designated as Docket No. EL86-49-000. CP&L has now requested that this docket be terminated.

Copies of the filing have been served upon those parties that have intervened in Docket Nos. ER86-577-000 (the filing which was ultimately designated as EL86-49-000) and EL86-49-000, CP&L's jurisdictional resale customers and the State Commissions of North Carolina and South Carolina.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

### 5. Central Illinois Light Company

[Docket No. ES87-12-000]

Take notice that on November 12, 1986, Central Illinois Light Company (Applicant), filed an application with the Commission seeking authority pursuant to section 204 of the Federal Power Act to issue from time to time short-term debt obligations in the aggregate principal amount not exceeding \$66,000,000 outstanding at any time with final maturities of not later than December 31, 1989.

Comment date: December 11, 1986, in accordance with Standard Paragraph E at the end of this notice.

### 6. Consolidated Edison Company of New York, Inc.

[Docket No. ER87-82-000]

Take notice that on November 5, 1986, Consolidated Edison Company of New York, Inc. ("Con Edison") tendered for filing Supplements to its Rate Schedule FERC No. 78, an agreement to provide transmission service for the Power Authority of the State of New York (the "Authority"). Supplement No. 1 provides for a decrease in rate from 2.7 mills to 2.6 mills per Kwh of interruptible transmission of power and energy sold by the Authority to the Long Island Municipal Distribution Agencies in Suffolk County, Nassau County and New York City (Rockaway) (the "MDAs"), thus decreasing annual revenues under the Rate Schedule by \$19,704.70. Supplement No. 2 provides for an increase in the monthly transmission charge from \$0.89 to \$0.93 per kilowatt for firm transmission of power and energy sold by the Authority to the MDAs, thus increasing annual revenues by \$6016.32. Con Edison has requested waiver of notice requirements so that Supplements No. 1 and 2 can be made effective as of September 1, 1985 and July 1, 1986, respectively.

Con Edison states that a copy of this filing has been served by mail upon the Authority.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

### 7. Pacific Gas and Electric Company

[Docket No. ER-87-81-000]

Take notice that on Nov. 5, 1986, Pacific Gas and Electric Company (PGandE) tendered for filing proposed changes to Rate Schedule FERC No. 95. These changes are to certain rates, terms, and conditions concerning those services rendered by PGandE under the agreement entitled "Power Sale Agreement Between Pacific Gas and Electric Company and the Port of Oakland" (Sale Agreement) which has been filed as part of Rate Schedule FERC No. 95. These changes are embodied in two bilateral agreements to the Sale Agreement:

- Appendix A notes the rates, terms, and conditions agreed upon by Port and PGandE; and
- Appendix C embodies the agreement between PGandE and the Port of Oakland (Port) on the procedure and mechanism designed to recover amounts due PGandE from Port and Port from PGandE as a result of rate changes based on certain California Public Utilities Commission and Federal Energy Regulatory Commission decisions.

The proposed changes to the rates, terms, and conditions in the Rate Appendices for services provided by PGandE to Port modify the present rate agreement between PGandE and Port, including revising the rate arrangements regarding the Diablo Canyon Nuclear Power Plant. Using 1986 billing determinants, these rate changes would result in an estimated yearly revenue increase of \$70,424.

Copies of this filing were served upon Port and the Public Utilities Commission of the State of California.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

### 8. San Diego Gas & Electric Company

[Docket No. ER87-78-000]

Take notice that on November 3, 1986 San Diego Gas & Electric Company (SDG&E) tendered for filing a change of scheduling and dispatching charge for the San Diego-Edison Firm Transmission Service Agreement (Rate Schedule FERC No. 58).

Under the terms of the agreement, SDG&E will make available to Southern California Edison Company firm transmission service between points near the U.S.-Mexico border and San Onofre as specified in the agreement.

SDG&E has requested an effective date of January 1, 1987.

Copies of this were served upon the Public Utilities Commission of the State of California and Edison.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this document.

#### 9. Arizona Public Service Company

[Docket No. ER87-86-000]

Take notice that Arizona Public Service Company (APS) on November 7, 1986, tendered for filing an Economy Energy Interchange Agreement between Arizona Public Service Company (APS) and Southwestern Public Service Company (SPS), executed October 14, 1986.

APS requested that this Agreement become effective 60 days from the date of filing with FERC.

Copies of this filing are being served upon SPS and the Arizona Corporation Commission.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 10. Carolina Power and Light Company

[Docket No. ER87-89-000]

Take notice that Carolina Power and Light Company on November 10, 1986, tendered for filing changes in its agreement with Jones-Onslow Electric Membership Corporation (EMC). Reflected in the filed Exhibit A is the installation of special metering facilities required to provide metering pulse information to Jones-Onslow EMC's Gum Branch 115 KV point of delivery and Harmon 115 KV point of delivery. The metering pulse information will be provided under Company's additional facilities plan.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 11. Central Maine Power Company

[Docket No. ER37-92-000]

Take notice that Central Maine Power Company ("CMP") on November 10, 1986, tendered for filing a Letter Agreement, an Assignment and Assumption Agreement, and a Transmission Service Agreement (collectively "the Service Agreement") between Down East Peat, Ltd. ("DEP") and CMP. Assuming a 75 percent first year plant capacity factor, CMP would receive approximately \$282,007 for the initial twelve month period of service ending December 30, 1989.

Under the Service Agreement, beginning on or after December 31, 1988, CMP will provide transmission service to DEP for an initial 12,000 kilowatt block of energy on the basis of a negotiated cost-based demand charge.

CMP also will provide transmission service for a second, 11,000 kilowatt block of energy pursuant to a negotiated usage-based charge. Copies of the filing have been served on Down East Peat, Ltd., Peat Products of America, Ltd., Peat Products of America, Inc., Down East Peat, L.P., and on the Maine Public Utilities Commission.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 12. South Carolina Electric & Gas Company

[Docket No. ER86-515-000]

Take notice that on October 17, 1986, South Carolina Electric & Gas Company (SCE&G) tendered for filing an amendment to its filing in the above captioned docket. The purpose of the amendment is to clarify the original filing.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 13. Central Power and Light Company and West Texas Utilities Company

[Docket No. ER87-93-000]

Take notice that on November 10, 1986, Central Power and Light Company ("CPL") and West Texas Utilities Company ("WTU") each tendered for filing an Electric Reliability Council of Texas ("ERCOT") Interchange Sales Tariff, an ERCOT Transmission Service Tariff for Large Utility Customers and a Master ERCOT Transmission Service Facility Charge Rate Schedule. CPL and WTU filed the tariffs in order that they each may participate in interchange and coordination transactions taking place within ERCOT. The two interchange sales tariffs provide for coordination sales by CPL and WTU, respectively, of Economy A Energy, Economy B Energy, Replacement Power, Emergency A Power and Emergency B Power (as such transaction types are defined in the ERCOT System Operating Guides). The two transmission service tariffs make available to other large ERCOT utilities (utilities with maximum loads of 1500 megawatts or greater) transmission services necessary for the same types of ERCOT coordination transactions. The Master Rate Schedules are intended as a mechanism to be used to file with the Commission the basic data used to determine transmission service facility charges using the positive megawatt-mile method. CPL and WTU request an effective date of October 15, 1986 for the tariffs and, accordingly, seek waiver of the notice requirements of the Federal Power Act.

Copies of the filing have been sent to the Public Utilities Commission of Texas.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 14. The Connecticut Light and power Company, et al.

[Docket No. ER87-64-000]

Take notice that on October 31, 1986, the Connecticut Light and power Company (CL&P) tendered for filing a proposed rate schedule with respect to a (1) Transmission Agreement dated March 22, 1986 between CL&P and Western Massachusetts Electric Company (WMECO); and (2) Boston Edison Company ("BECO").

The transmission charge rate is a weekly cost-of-service rate equal to one fifty-second of estimated annual average cost of transmission service on the Northeast Utilities system determined in accordance with Schedule A and Exhibits I, II, and III thereto of the Transmission Agreement. The weekly transmission charge is determined by the product of (i) the transmission charge rate (\$/kW-week) and (ii) the maximum number of kilowatts BECO purchases from CMEC during an hourly period of such week.

CL&P requests that the Commission waive its standard notice period and permit the Transmission Agreement to become effective as of March 22, 1986.

EMECO has filed a Certificate of Concurrence in this docket.

CL&P further states that the filing is in accordance with Section 35 of the Commission's Regulations.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 15. Consolidated Edison Company of New York, Inc.

[Docket No. ER87-88-000]

Take notice that on November 10, 1986, Consolidated Edison Company of New York, Inc. ("Con Edison") tendered for filing a notice of termination of its currently effective Rate Schedule FERC No. 81. The Rate Schedule, dated as of June 1, 1985, provides for the sale of capacity and energy to Long Island Lighting Company ("LILCO").

The Rate Schedule has been terminated pursuant to its terms.

Con Edison seeks an effective date of October 26, 1985, and therefore requests waiver of the Commission's notice requirements.

A copy of this filing has been served upon LILCO.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this document.

#### 16. The Dayton Power and Light Company

[Docket No. ER87-90-000]

Take notice that on November 10, 1986, The Dayton Power & Light Company (DP&L) tendered for filing an executed Short Term Agreement (Agreement) between DP&L and America Municipal Power—Ohio, Inc. (AMPO).

The proposed Agreement allows AMPO to purchase Short Term Power on behalf of its member Municipal (Patrons) and have the power delivered to the Patrons under various transmission agreements with other utilities.

DP&L requests the Commission waive its notice and filing requirements and permit the proposed Agreement to become effective December 1, 1986.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 17. Iowa Electric Light & Power Company

[Docket No. ER87-46-000]

Take notice that on October 24, 1986, Iowa Electric Light & Power Company (the Company) tendered for filing Service Agreements for customers who elect to take service under the Rate RES-3.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### 18. Kansas City Power & Light Company

[Docket No. ER87-77-000]

Take notice that on November 3, 1986, Kansas City Power & Light Company (KCPL) tendered for filing a Letter Agreement dated October 9, 1986, between KCPL and the Kansas Electric Power Cooperative, Inc. (KEPCo). KCPL requests an effective date of October 16, 1983. KEPCo has requested that KCPL provide System Energy during the Wolf Creek Generating Station refueling outage.

In its filing, KCPL states that the rates included in the above-mentioned Agreement are KCPL's rates and charges for similar service under schedules previously accepted for filing by the Federal Energy Regulatory Commission.

Comment date: December 1, 1986, in accordance with Standard Paragraph E at the end of this notice.

#### Standard Paragraphs

E. Any person desiring to be heard or to protest said filing should file a motion

to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's rules of practice and procedure (18 CFR 385.211 and 385.214). All such motions or protests should be filed on or before the comment date. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-26525 Filed 11-24-86; 8:45 am]

BILLING CODE 6717-01-M

[Docket Nos. QF87-59-000, et al.]

#### Small Power Production and Cogeneration Facilities; Qualifying Status Certificate Applications, etc.; Panther Creek Energy, Inc., et al.

Comment date: Thirty days from publication in the *Federal Register*, in accordance with Standard Paragraph E at the end of this notice.

November 20, 1986

Take notice that the following filings have been made with the Commission.

##### 1. Panther Creek Energy, Inc.

[Docket No. QF87-59-000]

On November 3, 1986, Panther Creek Energy, Inc. (Applicant), of 1000 Prospect Road, Windsor, Connecticut 06095-0500, submitted for filing an application for certification of a facility as a qualifying small power production facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The small power production facility will be located near the boroughs of Lanford and Summit Hill in Carbon County, Pennsylvania. The facility will consist of a fluidized-bed boiler and a steam turbine generating unit. The net electric power production capacity of the facility will be 79.5 MW. The primary energy source will be anthracite culm.

##### 2. American Anthracite Power Partners, L.P.

[Docket No. QF87-41-000]

On October 29, 1986, American Anthracite Power Partners, L.P. (Applicant), of 33 Rock Hill Road, Bala Cynwyd, Pennsylvania 19004-2010,

submitted for filing an application for certification of a facility as a qualifying small power production facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The small power production facility will be located off of Asbury Road in the Borough of Hampton, Hunterdon County, New Jersey. The facility will consist of one or two fluidized-bed boilers and steam turbine generator sets. The net electric power production capacity of the facility will be 35 MW. The primary energy source will be anthracite culm.

##### 3. Anheuser-Busch, Inc.

[Docket No. QF87-52-000]

On October 31, 1986, Anheuser-Busch, Inc. (Applicant), of One Busch Place, St. Louis, Missouri 63118 submitted for filing an application for certification of a facility as a qualifying cogeneration facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The topping-cycle cogeneration facility will be located at Applicant's brewery, 111 Busch Drive, Jacksonville, Florida 32229. The facility will consist of a combustion turbine generator and a heat recovery steam generator. The primary energy source will be natural gas. The net electric power production capacity of the facility will be 8,825 kW. Thermal energy recovered from the facility will be used for various process requirements in the brewery. Installation of the facility is scheduled to begin in January 1987.

##### 4. Chevron U.S.A. Inc.

[Docket No. QF86-1097-000]

On October 29, 1986, Chevron U.S.A. Inc. (Applicant), of 641 Standard Avenue, Richmond, California 94801 submitted for filing an application for certification of a facility as a qualifying cogeneration facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The topping-cycle cogeneration facility will be located in Richmond, California. The facility will consist of multiple trains, each including a combustion turbine generator and a heat recovery steam generator. The primary energy source will be natural gas. The net electric power production capacity of the facility will be 99 MW. Thermal energy recovered from the facility will be used in refinery process equipment, such as heaters, reboilers and

vaporizers. Installation of the facility is scheduled to begin in late 1987.

#### 5. Energy Ingenuity Company

[Docket No. QF87-53-000]

On October 31, 1986, Energy Ingenuity Company (Applicant), c/o Robert A. Downey, of P.O. Box 3705 Littleton, Colorado 80161-3705 submitted for filing an application for certification of a facility as a qualifying cogeneration facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The topping-cycle cogeneration facility will be located at the New Castle Energy Corporation Coal Mine, Section 6, Township 6 South, Range 90 West, 6th P.M., New Castle, Colorado. The facility will consist of two fluidized bed combustion boilers, two steam turbine generators. The exhaust heat and saturated steam and hot water will be used in the coal mining operation, space and water heating. The electric power production capacity of the facility will be 50 MW. The primary energy source will be coal and coal refuse.

#### 6. Finch, Pruyn & Company, Inc.

[Docket No. QF87-45-000]

On October 28, 1986, Finch, Pruyn & Company, Inc. (Applicant), of One Glen Street, Glens Falls, New York 12801 submitted for filing an application for certification of a facility as a qualifying cogeneration facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The topping-cycle cogeneration facility will be located at the Northside of the Hudson River in Warren County, Glens Falls, New York. The facility will consist of five boilers (four existing and one new) and an extraction/condensing steam turbine generator. The extracted steam from the facility will be used for process application at an on-site paper mill. The electric power production capacity of the facility will be 20 MW. The primary energy sources will be ammonia base bisulphite liquor, No. 6 fuel oil, and biomass in the form of wood waste. The construction and rebuilding of the existing facilities began on or about December 11, 1985.

#### 7. Kings Falls Power Corporation

[Docket No. QF87-47-000]

On October 29, 1986, Kings Falls Power Corporation (Applicant), c/o Conboy, McKay, Bachman & Kendall, of 407 Sherman Street, Watertown, New York 13601-9990 submitted for filing an application for certification of a facility

as a qualifying small power production facility pursuant to § 292.207 of the Commission's regulations. No determination has been made that the submittal constitutes a complete filing.

The 1.5 megawatt hydroelectric facility (FERC P. 7352-002) will be located in Lewis County, New York.

A separate application is required for a hydroelectric project license, preliminary permit or exemption from licensing. Comments on such applications are requested by separate public notice. Qualifying status serves only to establish eligibility for benefits provided by PURPA, as implemented by the Commission's regulations, 18 CFR Part 292. It does not relieve a facility of any other requirements of local, State or Federal law, including those regarding siting, construction, operation, licensing and pollution abatement.

#### Standard Paragraphs

E. Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's rules of practice and procedure (18 CFR 385.211 and 385.214). All such motions or protests should be filed on or before the comment date. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-26526 Filed 11-24-86; 8:45 am]

BILLING CODE 6717-01-M

#### [Docket No. CP84-429-023]

#### Texas Eastern Transmission Corp.; Proposed Changes In FERC Gas Tariff

November 19, 1986.

Take notice that Texas Eastern Transmission Corporation (Texas Eastern) on November 7, 1986 tendered for filing as part of its FERC Gas Tariff, Fourth Revised Volume No. 1 revised tariff sheets listed in Appendix A to the filing. The purpose of this filing is as follows.

Texas Eastern filed on October 2, 1986, tariff sheets in Docket No. CP84-429-022 pursuant to the May 2, 1985 Joint Offer of Settlement in Docket No. CP84-429 and the August 1, 1986

Commission order in Docket No. CP84-429-015. Such tariff sheets reflected *inter alia* the then contemplated implementation as of November 1, 1986 of the remaining 80,000 dth per day increase of the 1986 Contract Adjustment Program and transportation pursuant to Rate Schedule CTS, all as more fully described in the May 2, 1985 Joint Offer of Settlement and the August 1, 1986 Commission order. By Commission order issued October 29, 1986 in Docket No. CP84-429-022, the aforementioned tariff sheets were approved to be effective November 1, 1986.

Subsequent to the October 2, 1986 filing, Texas Eastern encountered unavoidable delays in the construction of the facilities required to implement the final phase of the Contract Adjustment Program as of November 1, 1986. Accordingly, Texas Eastern, by the filing of the tariff sheets listed in Appendix A attached hereto, proposes to reinstate as of November 1, 1986 for the affected participants their respective billing determinants and sales entitlements at the 1985 Contract Adjustment Program levels which were in effect prior to the October 2, 1986 tariff filing. Sheet No. 14, as filed herein, reinstates the Contract Adjustment—Demand rate for the 1985 Contract Adjustment Program level (102,893 dth) as previously approved by Commission order issued August 4, 1986 in Docket No. RP86-61-002 and deletes rates for Rate Schedule CTS.

Texas Eastern will file necessary tariff sheets reflecting the implementation of the final phase of the Contract Adjustment Program upon determination of the new completion date of the required facilities.

Texas Eastern hereby advises the Commission that the commencement of service under Rate Schedule FTS-II and of firm service under Rate Schedule SS-III set forth in Texas Eastern's FERC Gas Tariff, Fourth Revised Volume No. 1 and the commencement of service under Rate Schedules X-127, X-129 and X-130 set forth in Original Volume No. 2 will not be November 1, 1986 as previously advised. The foregoing Rate Schedules and relevant Service Agreements with the customers as approved by various Commission orders provide for the possibility of an in-serve date later than November 1, 1986 pursuant to which Texas Eastern will not commence billing of those affected customers until such time as service commences under such Rate Schedules.

The proposed effective date of the tariff sheets listed in Appendix A is November 1, 1986, the date necessary

for the continuance of the 1985 Contract Adjustment Program pending commencement of the 1986 Program.

Copies of the filing were served on Texas Eastern's jurisdictional customers and interested state commissions.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's rules of practice and procedure. All such motions or protests should be filed on or before 11-26-86. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public information.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-26531 Filed 11-24-86; 8:45 am]

BILLING CODE 6717-01-M

## Federal Energy Regulatory Commission

### Algonquin Gas Transmission Amendment to Applications

[Docket Nos. CP84-654-017; CP86-480-002]

November 14, 1986.

Take notice that on November 12, 1986, Algonquin Gas Transmission Company (Applicant), 1284 Soldiers Field Road, Boston, Massachusetts 02135, filed in Docket Nos. CP84-654-017 and CP86-480-002 an amendment to its applications filed in Docket No. CP86-480-000, and jointly in Docket Nos. CP86-480-001 and CP84-654-016 pursuant to section 7(c) of the Natural Gas Act so as to modify the allocation of gas for its developmental period Rate Schedule F-4 service, all as more fully set forth in the amendment which is on file with the Commission and open to public inspection.

On April 28, 1986, Applicant filed an application in Docket No. CP86-480-000 seeking authorization to increase its sales of natural gas by 4,612 dt equivalent of natural gas per day to 11 existing Rate Schedule F-4 customers and to construct and operate two pipeline loops: a 2.5 mile 16-inch line loop near New Bedford, Massachusetts, and a 1.4 mile 12-inch line loop near Berkley, Massachusetts. On September 11, 1986, Applicant filed jointly in Docket Nos. CP84-654-016 and CP86-

480-001 an application to amend its existing certificate of public convenience and necessity in Docket No. CP84-654-000 and an amendment to its application in Docket No. CP86-480-000 so as to extend one year its developmental period firm sales of natural gas under Rate Schedule F-4 and to relinquish, for a period expiring on October 31, 1987, 11,543 dt equivalent of natural gas per day that would otherwise be purchased from Texas Eastern Transmission Corporation and resold during the development period.

In its instant amendment, Applicant seeks authorization to modify its sales of natural gas during the second development period (though October 31, 1987) under its Rate Schedule F-4. Applicant proposes to sell up to 38,125 dt equivalent of gas per day on a firm basis under Rate Schedule F-4 for a period commencing November 1, 1986 and terminating on or about December 15, 1986. Thereafter, and through a period expiring on October 31, 1987, Applicant proposes to sell up to 62,243 dt equivalent of gas per day on a firm basis to its Rate Schedule F-4 developmental period customers. Applicant proposes to allocate these sales to the following customers in the amounts shown below:

Customer	Through 12/15/86 (dt/d)	Through 10/31/87 (dt/d)
Bay State Gas Co.....	2,820	4,606
Bristol & Warren Gas Co.....	166	271
Colonial Gas Co.....	4,260	6,954
Commonwealth Gas Co.....	8,278	13,515
Connecticut Light & Power Co.....	4,347	7,097
Connecticut Natural Gas Corp.....	6,354	10,374
Fall River Gas Co.....	1,932	3,153
City of Norwich, Connecticut.....	378	617
Orange & Rockland Utilities, Inc.....	610	995
Pegut Gas Co.....	47	77
Providence Gas Co.....	6,622	10,812
South County Gas Co.....	103	168
Southern Connecticut Gas Co.....	2,208	3,604
Total.....	38,125	62,243

For these sales, Applicant proposes to charge its approved initial rate for full Rate Schedule F-4 firm service, including a monthly demand handling charge of \$22.756 per dt equivalent of contract demand.

In addition, Applicant asks for a waiver of the notice requirements in § 154.22 of the Commission's Regulations (18 CFR 154.22) in order to permit the *pro forma* tariff sheets accompanying its application and containing the above service modifications to be accepted for filing and made effective as of November 1, 1986.

Applicant states that the above modifications in its developmental period Rate Schedule F-4 service are

necessary in order to reflect unexpected equipment outages and resultant decreased availability of gas supplies from its upstream gas supplier and to reflect the inability to receive timely permits associated with Applicant's pipeline expansion project in New Jersey.

Any person desiring to be heard or to make any protest with reference to said amendment should on or before November 28, 1986, file with the Federal Energy Regulatory Commission, Washington, DC 20426, a motion to intervene or a protest in accordance with the requirements of the Commission's rules of practice and procedure (18 CFR 385.214 or 385.211) and the Regulations under the Natural Gas Act (18 CFR 157.10). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken, but will not serve to make the protestants parties to the proceeding. Any person wishing to become a party to a proceeding or to participate as a party in any hearing therein must file a motion to intervene in accordance with the Commissions Rules. Persons who have heretofore filed in Docket Nos. CP84-654-016, CPD86-480-000 or CP86-480-001 need not file again.

Kenneth F. Plumb,

Secretary.

[FR Doc. 86-26528 Filed 11-24-86; 8:45 am]

BILLING CODE 6717-01-M

### Panhandle Eastern Pipe Line Co.; Compliance Filing

November 19, 1986.

Take notice that on November 7, 1986, Panhandle Eastern Pipe Line Company (Panhandle) tendered for filing Original Sheet Nos. 32-AL through 32-BD to its FERC Gas Tariff, Original Volume No. 1. According to § 381.103(b)(2)(iii) of the Commission's regulations (18 CFR 381.103(b)(2)(iii)), the date of filing is the date on which the Commission receives the appropriate filing fee, which in the instant case was not until November 14, 1986.

Panhandle states that these sheets are provided in compliance with the Commission's October 15, 1986 Order. These sheets set forth forms of transportation agreements for firm and interruptible service under Panhandle's Rate Schedule PT. Panhandle has also revised Original Sheet No. 32-AE to eliminate a provision in paragraph 6.6(b) which provided for collection of interest on late payments at the Citibank prime rate and states that the measurement of

such interest shall be at an average prime rate computed in a manner consistent with the Commission's regulations.

Panhandle has requested waiver of the provisions of the October 15, 1986 Order regarding the time in which this filing is to be made so that these filed tariff sheets may be accepted.

Any person desiring to be heard or to protest said filing should file a motion to intervene or a protest with the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, DC 20426, in accordance with Rules 214 and 211 of the Commission's Rules of Practice and Procedure. All such motions or protests should be filed on or before November 26, 1986. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

**Kenneth F. Plumb,**  
*Secretary.*

[FR Doc. 86-26529 Filed 11-24-86; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. RP86-115-002]

#### **Trunkline Gas Co.; Compliance Filing**

November 19, 1986.

Take notice that on November 7, 1986, Trunkline Gas Co. (Trunkline) tendered for filing Original Sheet Nos. 9-CA through 9-CS to its FERC Gas Tariff, Original Volume No. 1. According to § 381.103(b)(2)(iii) of the Commission's regulations (18 CFR 381.103(b)(2)(iii)), the date of filing is the date on which the Commission receives the appropriate filing fee, which in the instant case was not until November 14, 1986.

Trunkline states that these sheets are provided in compliance with the Commission's October 15, 1986 Order. These sheets set forth forms of transportation agreements for firm and interruptible service under Trunkline's Rate Schedule PT. Trunkline has also revised Original Sheet No. 9-BR to eliminate a provision in paragraph 6.6(b) which provided for collection of interest on late payments at the Citibank prime rate and states that the measurement of such interest shall be at an average prime rate computed in a manner consistent with the Commission's regulations.

Trunkline has requested waiver of the provisions of the October 15, 1986 Order

regarding the time in which this filing is to be made so that these filed tariff sheets may be accepted.

Any person desiring to be heard or to protest said filing should file a motion to intervene or a protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with Rules 214 and 211 of the Commission's Rules of Practice and Procedure. All such motions or protests should be filed on or before November 26, 1986. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

**Kenneth F. Plumb,**  
*Secretary.*

[FR Doc. 86-26529 Filed 11-24-86; 8:45 am]  
BILLING CODE 6717-01-M

[Docket No. RP87-19-000]

#### **Texas Eastern Transmission Corp.; Proposed Changes in FERC Gas Tariff**

November 19, 1986.

Take notice that on November 14, 1986, Texas Eastern Transmission Corporation (Texas Eastern) tendered for filing First Revised Sheet No. 46 and Original Sheet No. 46A to its FERC Gas Tariff, Fourth Revised Volume No. 1. The revised tariff sheets reflect a change other than in rate level, as defined in 18 CFR 154.63.

Texas Eastern states that the revised tariff sheets are being filed in order to conform the applicability and character of service under Texas Eastern's SS Rate Schedule to that required as a result of the Commission's order authorizing abandonment of the Staten Island LNG facility used in conjunction with providing the SS service, issued in *Texas Eastern Transmission Corporation*, Docket No. CP85-859-000, 35 FERC 61,061 (1986). The revised tariff sheets provide that service under Rate Schedule SS may be subject to interruption for curtailment on a pro rata basis as a result of the destruction and abandonment of the LNG facility. The duration of the proposed revisions is limited to the period that elapses prior to the date on which the capacity lost by virtue of the destruction of the LNG facility is restored to Texas Eastern's system.

Copies of the filing were served upon Texas Eastern's jurisdictional customers and interested state commissions.

Any person desiring to be heard or to protest said filing should file a motion to intervene or a protest with the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, DC 20426, in accordance with Rules 214 and 211 of the Commission's rules of practice and procedures. All such motions or protests should be filed on or before November 26, 1986. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a motion to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

**Kenneth F. Plumb,**  
*Secretary.*

[FR Doc. 86-26532 Filed 11-24-86; 8:45 am]  
BILLING CODE 6717-01-M

#### **Office of Energy Research**

##### **High Energy Physics Advisory Panel; Open Meeting**

Pursuant to the provisions of the Federal Advisory Committee Act (Pub. L. 92-463, 86 Stat. 770), notice is hereby given of the following meeting:

Name: High Energy Physics Advisory Panel (HEPAP).

Date and Time: Monday, December 15, 1986, 9:00 am-6:00 pm; Tuesday, December 16, 1986, 9:00 am-4:00 pm.

Place: Fermi National Accelerator Laboratory, Batavia, Illinois 60510.

Contact: Dr. P.K. Williams, Executive Secretary, High Energy Physics Advisory Panel, U.S. Department of Energy, ER-221:GTN, Washington, DC 20545, Telephone: 301/353-4829.

##### **Purpose of Panel**

To provide advice and guidance on a continuing basis with respect to the high energy physics research program.

##### **Tentative Agenda**

*Monday, December 15, 1986*

- Discussion of the FY 1987 Budget for the National Science Foundation Elementary Particle Physics Program
- Discussion of the FY 1987 Budget for the Department of Energy High Energy Physics Program
- Discussion of Networking Computers for High Energy Physics
- Discussion of a Possible Subpanel on the Role of Universities in High Energy Physics
- HEPAP Review of Fermilab

Tuesday, December 16, 1986

- Discussion of International Conference on Future Accelerators Planning Meeting in Budapest, Hungary
- Status Report on Non-Accelerator Particle Physics Funding
- Report on US/PRC Cooperative Program in High Energy Physics
- Future Discussion of Foregoing Items

#### Public Participation

The meeting is open to the public. The Chairperson of the panel is empowered to conduct the meeting in a fashion that will, in his judgment, facilitate the orderly conduct of business. Any member of the public who wishes to make oral statements pertaining to agenda items should contact the Executive Secretary at the address or telephone number listed above. Requests must be received at least 5 days prior to the meeting and

reasonable provision will be made to include the presentation on the agenda.

#### Minutes

Available for public review and copying at the Public Reading Room, Room 1E-190, Forrestal Building, 1000 Independence Avenue SW., Washington, DC between 9:00 a.m. and 4:00 p.m., Monday through Friday, except Federal holidays.

Issued at Washington, DC on November 20, 1986.

J. Robert Franklin,  
Deputy Advisory Committee Management Office.

[FR Doc. 86-26572 Filed 11-24-86; 8:45 am]

BILLING CODE 6450-01-M

#### Office of Hearings and Appeals

##### Cases Filed Week of October 10 Through October 17, 1986

During the Week of October 10 through October 17, 1986, the appeals

and applications for exception or other relief listed in the Appendix to this Notice were filed with the Office of Hearings and Appeals of the Department of Energy.

Under DOE procedural regulations, 10 CFR Part 205, any person who will be aggrieved by the DOE action sought in these cases may file written comments on the application within ten days of service of notice, as prescribed in the procedural regulations. For purposes of the regulations, the date of service of service of notice is deemed to be the date of publication of this Notice or the date of receipt by an aggrieved person of actual notice, whichever occurs first. All such comments shall be filed with the Office of Hearings and Appeals, Department of Energy, Washington, DC 20585.

George B. Breznay,

Director, Office of Hearings and Appeals.

November 14, 1986.

#### LIST OF CASES RECEIVED BY THE OFFICE OF HEARINGS AND APPEALS

[Week of Oct. 10 through Oct. 17, 1986]

Date	Name and location of applicant	Case No.	Type of submission.
Oct. 15, 1986.....	Mitchell Fuel Co., Inc., South Windsor, CT.....	KEE-0075	Exception to the reporting requirements. If granted: Mitchell Fuel Co., Inc. would not be required to file Form EIA-782B, "Reseller/Retailers' Monthly Sales Report."
Do.....	Ultra Power Corp., Monticello, NY.....	KEE-0076	Exception to the reporting requirements. If granted: Ultra Power Corp. would not be required to file Form EIA-782B, "Reseller/Retailers' Monthly Petroleum Product Sales Report."

#### REFUND APPLICATIONS RECEIVED

[Week of Oct. 10 to Oct. 17, 1986]

Date received	Name of refund proceeding/name of refund applicant	Case No.
10/14/86.....	Gulf/Clair G. Reid.....	RF259-7
10/14/86.....	Conoco/Crocker's Conoco Service.....	RF220-422
10/14/86.....	Farstad/Bairs Truck Stop.....	RF261-6
10/14/86.....	Dalco/North Central Public Service Company.....	RF248-5
4/28/86.....	Mobil/Penn Oil Company.....	RF225-10273
4/14/86.....	Mobil/Mid American Energy Corp.....	RF225-10275
10/14/86.....	Cement Translt Company.....	RF271-31
10/14/86.....	Foss Maritime Company.....	RF271-30
10/06/86.....	Northeast Petroleum/George E. Warren Corporation.....	RF264-1
10/15/86.....	Defense Logistics Agency.....	RF272-11
10/15/86.....	Long Island Rail Road.....	RF272-10
10/15/86.....	Land Use Corporation.....	RF272-9
10/14/86.....	Greater Roanoke Transit Co.....	RF272-8
10/08/86.....	Sigmor/Valero Refining & Marketing Company.....	RF242-21
10/14/86.....	Gulf/Port Henry Oil Corp.....	RF40-3494
10/14/86.....	Gulf/Senior Oil Co., Inc.....	RF40-3493
10/14/86.....	Gulf/Lowville Oil Co., Inc.....	RF40-3492
10/14/86.....	Gulf/A.J. Ahrens & Son.....	RF40-3491
10/10/86.....	Gulf/Tucker's Grocery.....	RF40-3490
10/10/86.....	Gulf/Holiday Inn Gulf.....	RF40-3489
10/10/86.....	Gulf/McLaughlin's Gulf.....	RF40-3488
10/09/86.....	Gulf/City of Houston, Texas.....	RF40-3487
10/09/86.....	Gulf/Yellow Cab Co. of Shreveport, Inc.....	RF40-3486
10/15/86.....	Gulf/Larry J. Harper.....	RF259-8
10/15/86.....	LARCO/Rio Vista Oil Ltd.....	RF112-199
10/15/86.....	Beacon/Cash Oil Company.....	RF238-75
10/15/86.....	Gulf/Arkansas Electric Cooperative, Inc.....	RF40-3495
10/15/86.....	Tenneco/Benton Oil Service, Inc.....	RF7-147
10/15/86.....	Tenneco/Louis Stultz, Jr., Inc.....	RF7-148
10/15/86.....	Tenneco/Clouse Oil of Ozark, AL, Inc.....	RF7-149
10/15/86.....	Tenneco/Ryan's Jet Gas, Inc.....	RF7-150
10/15/86.....	Dalco/Great Plains Gas.....	RF248-7
10/15/86.....	Marine/Billy Lawson.....	RF257-8
10/15/86.....	Marine/McCollum Service Station.....	RF257-9
10/16/86.....	Southern Towing Company.....	RF271-32
10/17/86.....	Hampton & Branchville Railroad Company.....	RF271-33

## REFUND APPLICATIONS RECEIVED—Continued

[Week of Oct. 10 to Oct. 17, 1986]

Date received	Name of refund proceeding/name of refund applicant	Case No.
10/14/86	Amoco/Connecticut	RQ251-329
10/16/86	Erie Metropolitan Transit Authority	RF272-12
10/16/86	Via Metropolitan Transit	RF272-13
10/17/86	King Fisher Marine Service, Inc.	RF272-14
10/10-17/86	Mobil Refund Applications	RF225-10348 to RF225-10365
10/10-16/86	Marathon Refund Applications	RF250-1551 to RF250-1594
10/10-17/86	H.C. Lewis Refund Applications	RF266-1 to RF266-12
10/10-17/86	Surface Transporters Refund Applications	RF270-145 to RF270-232

[FR Doc. 86-26573 Filed 11-24-86; 8:45 am]

BILLING CODE 6450-01-M

### Issuance of Proposed Decisions and Orders, Week of October 6 Through October 10, 1986

During the week of October 6 through October 10, 1986, the proposed decisions and orders summarized below were issued by the Office of Hearings and Appeals of the Department of Energy with regard to applications for exception.

Under the procedural regulations that apply to exception proceedings (10 CFR Part 205, Subpart D), any person who will be aggrieved by the issuance of a proposed decision and order in final form may file a written notice of objection within ten days of service. For purposes of the procedural regulations, the date of service of notice is deemed to be the date of publication of this Notice or the date an aggrieved person receives actual notice, whichever occurs first.

The procedural regulations provide that an aggrieved party who fails to file a Notice of Objection within the time period specified in the regulations will be deemed to consent to the issuance of the proposed decision and order in final form. An aggrieved party who wishes to contest a determination made in a proposed decision and order must also file a detailed statement of objections within 30 days of the date of service of the proposed decision and order. In the statement of objections, the aggrieved party must specify each issue of fact or law that it intends to contest in any further proceeding involving the exception matter.

Copies of the full text of these proposed decisions and orders are available in the Public Reference Room of the Office of Hearings and Appeals, Room 1E-234, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585, Monday through

Friday, between the hours of 1:00 p.m. and 5:00 p.m., except federal holidays.

**George B. Breznay,**  
*Director, Office of Hearings and Appeals.*  
November 14, 1986.

*Baribault Oil Company, Inc., Oakville, CT, KEE-0062*

*ScotRick Corporation, Clinton, CT, KEE-0063*

Baribault Oil Co., Inc. and ScotRick Corporation each filed an Application for Exception in which the firm sought relief from its obligation to submit Form EIA-782B, entitled "Resellers'/Retailers' Monthly Petroleum Product Sales Report." In considering the applicants' requests, the DOE found that the firms failed to demonstrate that they were particularly adversely affected by the requirement that they file the Form. Accordingly, on October 6, 1986, the DOE proposed that exception relief be denied to both firms.

*Danielson Oil Co. Inc., Danielson, CT, KEE-0061*

Danielson Oil Co., Inc. filed an Application for Exception in which the firm sought relief from its obligation to submit Form EIA-782B, entitled "Resellers'/Retailers' Monthly Petroleum Product Sales Report." In considering the applicants' requests, the DOE found that the firm failed to demonstrate that it was particularly adversely affected by the requirement that it file the Form. Accordingly, on October 6, 1986, the DOE proposed that exception relief be denied.

*Molo Oil Company, Dubuque, IA, KEE-0060*

Molo Oil Company filed an Application for Exception from the requirement to file Form EIA-782B, entitled "Resellers'/Retailers' Monthly Petroleum Product Sales Report." On October 7, 1986, the Department of Energy issued a Proposed Decision and Order which determined that the exception request should be denied.

[FR Doc. 86-26575 Filed 11-24-86; 8:45 am]

BILLING CODE 6450-01-M

### Issuance of Proposed Decision and Order, Week of October 13 Through October 17, 1986

During the week of October 13 through 17, 1986, the proposed decision and order summarized below was issued by the Office of Hearings and

Appeals of the Department of Energy with regard to an application for exception.

Under the procedural regulations that apply to exception proceedings (10 CFR Part 205, Subpart D), any person who will be aggrieved by the issuance of a proposed decision and order in final form may file a written notice of objection within ten days of service. For purposes of the procedural regulations, the date of service of notice is deemed to be the date of publication of this Notice or the date an aggrieved person receives actual notice, whichever occurs first.

The procedural regulations provide that an aggrieved party who fails to file a Notice of Objection within the time period specified in the regulations will be deemed to consent to the issuance of the proposed decision and order in final form. An aggrieved party who wishes to contest a determination made in a proposed decision and order must also file a detailed statement of objections within 30 days of the date of service of the proposed decision and order. In the statement of objections, the aggrieved party must specify each issue of fact or law that it intends to contest in any further proceeding involving the exception matter.

Copies of the full text of this proposed decision and order are available in the Public Reference Room of the Office of Hearings and Appeals, Room 1E-234, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585, Monday through Friday, between the hours of 1:00 p.m. and 5:00 p.m., except federal holidays.

**George B. Breznay,**  
*Director, Office of Hearings and Appeals.*

November 14, 1986.

*Louisiana Crude Oil and Gas Co., New Orleans, Louisiana, Dee-2130, Crude Oil*

Louisiana Crude Oil & Gas Company filed an Application for Exception from the provisions of 6 C.F.R. § 150.354 and 10 C.F.R. §§ 212.73, 212.74. The exception request, if granted, would permit Louisiana Crude Oil &

Gas Company to receive retroactive exception relief from the Mandatory Petroleum Price Regulations for September 1974 through August 1977. On October 14, 1986, the Department of Energy issued a Proposed Decision and Order which tentatively concluded that the exception request should be denied.

[FR Doc. 86-26576 Filed 11-24-86; 8:45 am]

BILLING CODE 6450-01-M

### Issuance of Proposed Decisions and Orders—Week of October 27 Through October 31, 1986

During the week of October 27 through October 31, 1986, the proposed decision and order summarized below was issued by the Office of Hearings and Appeals of the Department of Energy with regard to an application for exception.

Under the procedural regulations that apply to exception proceedings (10 CFR Part 205, Subpart D), any person who will be aggrieved by the issuance of a proposed decision and order in final form may file a written notice of objection within ten days of service. For purposes of the procedural regulations, the date of service of notice is deemed to be the date of publication of this Notice or the date an aggrieved person receives actual notice, whichever occurs first.

The procedural regulations provide that an aggrieved party who fails to file a Notice of Objection within the time period specified in the regulations will be deemed to consent to the issuance of the proposed decision and order in final form. An aggrieved party who wishes to contest a determination made in a proposed decision and order must also file a detailed statement of objections within 30 days of the date of service of the proposed decision and order. In the statement of objections, the aggrieved party must specify each issue of fact or law that it intends to contest in any further proceeding involving the exception matter.

Copies of the full text of this proposed decision and order are available in the Public Reference Room of the Office of Hearings and Appeals, Room 1E-234, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585, Monday through Friday, between the hours of 1:00 p.m. and 5:00 p.m., except Federal holidays.

November 14, 1986.

George B. Breznay,

Director, Office of Hearings and Appeals.

Lockheed Air Terminal, Inc., Burbank, CA, KEE-0050, Reporting Requirements.

Lockheed Air Terminal, Inc. filed an Application for Exception from the

requirement to file Form EIA-782B, entitled "Resellers'/Retailers' Monthly Petroleum Product Sales Report." On October 31, 1986, the Department of Energy issued a Proposed Decision and Order which determined that the exception request should be denied.

[FR Doc. 86-26577 Filed 11-24-86; 8:45 am]

BILLING CODE 6450-01-M

### Objection To Proposed Remedial Orders Filed for the Period of September 22 Through October 24, 1986

During the period of September 22 through October 24, 1986, the notice of objection to the proposed remedial order listed in the Appendix to this Notice was filed with the Office of Hearings and Appeals of the Department of Energy.

Any person who wishes to participate in the proceeding the Department of Energy will conduct concerning the proposed remedial order described in the Appendix to this Notice must file a request to participate pursuant to 10 CFR 205.194 within 20 days after publication of this Notice. The Office of Hearings and Appeals will then determine those persons who may participate on an active basis in the proceeding and will prepare an official service list, which it will mail to all persons who filed requests to participate. Persons may also be placed on the official service list as non-participants for good cause shown.

All requests to participate in this proceeding should be filed with the Office of Hearings and Appeals, Department of Energy, Washington, DC 20585.

George B. Breznay,

Director, Office of Hearings and Appeals.

November 14, 1986.

Mt. Airy Refining Co., et al, Cincinnati, OH, KRO-0320, Crude Oil

On October 21, 1986, Mr. Airy Refining Co., 13715 Chelwood Place, Houston, Texas; William P. Boswell, 8805 Camargo Club Drive, Cincinnati, Ohio 45243; W. Luke Boswell, 4790 Burley Hills Drive, Cincinnati, Ohio 45243; Lindsay B. McLean, 7407 Star Key Road, Pleasant Plain, Ohio 45162; David P. Boswell, Route 5, Box VV, Priest River, Idaho 83856; P. Wilson Boswell, II, Route 1, P.O. Box 405A, Priest River, Idaho 83856; and Ellen W. Boswell, 2531 Waterside Drive, Washington, D.C. 20008 filed a Notice of Objection to a Proposed Remedial Order the DOE Economic Regulatory Administration issued to Mr. Airy et al. on September 24, 1986. On October 27, 1986, the State of California also filed a Notice of Objection to this PRO. In the PRO, the ERA found that during the period June 1977 to November 1977, Mt. Airy improperly reported its crude oil receipts on its Refiners Monthly Reports.

According to the PRO, these violations totalled \$1,833,305.34.

[FR Doc. 86-26574 Filed 11-24-86; 8:45 am]

BILLING CODE 6450-01-M

### Implementation of Special Refund Procedures

**AGENCY:** Office of Hearings and Appeals, Department of Energy.

**ACTION:** Notice of Implementation of Special Refund Procedures.

**SUMMARY:** The Office of Hearings and Appeals of the Department of Energy announces the procedures for disbursement of \$204,625.14 obtained as a result of a Consent Order which the DOE entered into with Perta Oil Marketing Corporation, a reseller-retailer of crude oil and refined petroleum products located in Beverly Hills, California. The money is being held in escrow following the settlement of enforcement proceedings brought by the DOE's Economic Regulatory Administration.

**DATE AND ADDRESS:** Applications for refund of a portion of the Perta consent order funds associated with the firm's alleged petroleum product overcharges must be filed in duplicate and must be received within 90 days of publication of this notice in the *Federal Register*. All applications should refer to Case Number HEF-0148 and should be addressed to: Office of Hearings and Appeals, Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585.

**FOR FURTHER INFORMATION CONTACT:** Walter J. Marullo, Office of Hearings and Appeals, Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 252-6602.

**SUPPLEMENTARY INFORMATION:** In accordance with § 205.282(c) of the procedural regulations of the Department of Energy, 10 CFR 205.282(c), Notice is hereby given of the issuance of the Decision and Order set out below. The Decision relates to a Consent Order entered into by the DOE and Perta Oil Marketing Corporation (Perta) which settled all claims and disputes between Perta and the DOE regarding the firm's compliance with the DOE price regulations during the period August 1, 1973, through January 28, 1981 (consent order period). A Proposed Decision and Order tentatively establishing refund procedures and soliciting comments from the public concerning the distribution of the Perta consent order funds was issued on June 18, 1985. 50 FR 26611 (June 27, 1985).

The Decision sets forth procedures and standards that the DOE has formulated to distribute the contents of an escrow account funded by Perta pursuant to the Consent Order. The DOE has decided to divide the consent order funds into two pools: one for crude oil and one for refined petroleum products. The \$69,802.04, plus accrued interest, associated with Perta's alleged crude oil violations will be distributed according to the DOE's Statement of Modified Restitutionary Policy in Crude Oil Cases. See 51 FR 27899 (August 4, 1986). The balance of the consent order funds will be distributed to the five first purchasers which the DOE's audit of Perta indicated may have been overcharged in their purchases of Perta refined petroleum products, provided that each files an Application for Refund and adequately demonstrates injury. Applications for Refund will also be accepted from first purchasers and downstream customers not identified by the DOE audit. In order to receive a refund, an unidentified claimant will be required to submit a schedule of its monthly purchases of Perta refined petroleum products and to demonstrate that it was injured by Perta pricing practices. A downstream purchaser must also submit the name of its immediate supplier and indicate why it believes the products were originally sold by Perta. If valid claims exceed the petroleum product funds available in the escrow account, all refunds will be reduced proportionately.

As the accompanying Decision and Order indicates, Applications for Refund may now be filed by customers that purchased Perta refined petroleum products during the consent order period. Applications will be accepted provided they are filed in duplicate and received no later than 90 days after publication of this Decision and Order in the *Federal Register*. The specific information required in an Application for Refund is set forth in the Decision and Order.

Dated: November 12, 1986.

George B. Breznay,

Director, Office of Hearings and Appeals.

## Decision and Order of the Department of Energy

### Implementation of Special Refund Procedures

November 12, 1986.

*Name of Firm:* Perta Oil Marketing Corporation.

*Date of Filing:* October 13, 1983.

*Case Number:* HEF-0148.

Under the procedural regulations of the Department of Energy (DOE), the Economic Regulatory Administration

(ERA) may request that the Office of Hearings and Appeals (OHA) formulate and implement special procedures to distribute funds received as a result of an enforcement proceeding in order to remedy the effects of alleged or actual violations of the DOE regulations. See 10 CFR Part 205, Subpart V. On October 13, 1983, ERA filed a Petition for the Implementation of Special Refund Procedures in connection with a Consent Order entered into with Perta Oil Marketing Corporation (Perta). This Decision and Order contains the procedures which OHA has formulated to distribute the funds received pursuant to that Consent Order.

### I. Background

Perta is a "reseller-retailer" of crude oil and refined petroleum products as that term was defined in 10 CFR 212.31, and is located in Beverly Hills, California. A DOE audit of the firm's records revealed possible violations of the Mandatory Petroleum Price Regulations, 10 CFR Part 212, Subpart F. A Notice of Probable Violation issued to Perta on May 9, 1979, alleged that during the period from August 1, 1973, through January 27, 1981, Perta committed possible pricing violations amounting to \$1,858,143.32 with respect to its sales of crude oil and refined petroleum products.

In order to settle all claims and disputes between Perta and the DOE regarding the firm's compliance with the DOE price regulations, Perta and the DOE entered into a Consent Order on July 1, 1981. The Consent Order refers to ERA's allegations of overcharges, but notes that there was no finding that violations occurred. The Consent Order also states that Perta does not admit that it violated the regulations.

Under the terms of the Consent Order, Perta agreed to make refunds amounting to \$250,000 as follows: First, Perta was to directly refund \$60,720 to Pacific Gas and Electric Co.; second, in order to make restitution to certain wholesale purchasers, Perta was required to deposit \$189,280 into an interest-bearing escrow account for ultimate distribution by the DOE. Perta deposited this amount, plus interest of \$15,345.14, on November 30, 1981. This Decision concerns the distribution of the \$204,625.14 received from Perta, plus the interest that has accrued on the escrow account.<sup>1</sup>

<sup>1</sup> As of October 31, 1986, the total value of the escrow account was \$323,646.53.

On June 18, 1985, a Proposed Decision and Order (PD&O) was issued which set forth a tentative plan for the distribution of refunds to parties that were injured by Perta's alleged violations in its sales of crude oil and refined petroleum products. 50 Fed. Reg. 26611 (June 27, 1985). The PD&O stated that in order to recompense parties that were injured by Perta's alleged violations of the DOE regulations, we would rely in part upon the information developed by ERA in its audit of the firm. See, e.g., *Marion Corp.*, 12 DOE ¶ 85,014 (1984) (*Marion*). With this type of material, a reasonably precise determination can be made as to the identity of possibly overcharged parties as well as the level of any alleged overcharges. At the same time, we recognized that there may have been other purchasers that were allegedly overcharged during the consent order period but which were not identified by the ERA audit. The PD&O stated that these purchasers would also be eligible to claim a portion of the consent order funds.

A copy of the PD&O was published in the *Federal Register* and comments were solicited regarding the proposed refund procedures. In addition, a copy of the PD&O was mailed to Perta as well as to each purchaser identified in the audit file. Comments were submitted on behalf of the Controller of the State of California and by the Attorney General of Texas.

The comments filed by the Attorney General of Texas concern the PD&O's proposal for effecting restitution for Perta's alleged crude oil violations. Since the PD&O was issued, the DOE has formulated a new policy with respect to refund proceedings involving alleged crude oil violations. The portion of the escrow funds attributable to alleged crude oil violations, \$69,802.04, will be distributed according to the DOE's Statement of Modified Restitutionary Policy in Crude Oil Cases. See 51 Fed. Reg. 27899 (August 4, 1986). The remainder of this Decision sets forth the procedures for distributing refunds involving Perta's alleged overcharges in its sales of refined petroleum products. Accordingly, the procedures described in Section II below concern the distribution of \$134,823.10, plus the accrued interest associated with this sum.

The comments filed on behalf of the Controller of California concern the distribution of any funds remaining after refunds have been made to injured parties. In disposing of any residual petroleum product funds, we will act in accordance with the provisions of the recently enacted Petroleum Overcharge

Distribution and Restitution Act of 1986. See H.R. 5300, Title III, 99th Cong., 2d Sess., 132 Cong. Rec. H11319-21 (daily ed. October 17, 1986).

## II. Refund Procedures

The general guidelines which OHA may use to formulate and implement a plan to distribute funds received as the result of a Consent Order are set forth in 10 CFR Part 205, Subpart V. For a more detailed discussion of Subpart V and the authority of OHA to fashion procedures to distribute refunds obtained as part of settlement agreements, see *Office of Enforcement*, 9 DOE ¶ 82,508 (1981); and *Office of Enforcement*, 8 DOE ¶ 82,597 (1981) (*Vickers*).

### A. Refunds to Identified Purchasers

In the DOE's audit of Perta, ERA identified five first purchasers as having been allegedly overcharged in their purchases of Perta refined petroleum products.<sup>2</sup> As in previous cases, the funds in the escrow account will be used to make refunds to (i) the first purchasers identified in the audit that satisfactorily demonstrate that they were injured by the alleged overcharges, (ii) other injured first purchasers, and (iii) subsequent repurchasers that can also show injury. See, e.g., *Bob's Oil Co.*, 12 DOE ¶ 85,024 (1984); *Richards Oil Company*, 12 DOE ¶ 85,150 (1984). The Appendix to this Decision lists the names and addresses of the first purchasers identified in the audit along with the shares of the petroleum product escrow funds allotted to each by ERA.<sup>3</sup>

Identification of first purchasers is only the first step in the distribution process. We must also consider whether these claimants were injured or were able to pass through the alleged overcharges. In order to be eligible to receive a refund, all claimants will have to file an application and, with the three exceptions discussed below, show the extent to which they were injured by the alleged overcharges. To the extent that any firm can establish injury, it will be eligible for a share of the consent order funds.

<sup>2</sup> ERA alleged that Perta committed two types of overcharges with respect to its sales of refined petroleum products. First, ERA alleged that Perta received greater than its maximum lawful selling price in certain sales of residual fuel oil. In addition, ERA maintained that Perta improperly changed the credit terms which it extended to five of its customers, thus increasing their interest costs.

<sup>3</sup> The share of the escrow fund allocated to each firm listed in the Appendix represents 13.5 percent of the amount each firm was allegedly overcharged. This is consistent with the terms of the Consent Order, which settled for 13.5 percent of the total amount of overcharges alleged in the audit. The firms may submit information to show that they should receive refunds larger than those indicated.

In this case we will adopt two rebuttable presumptions as well as two findings regarding injury. These presumptions and findings have been used in many previous special refund cases. We will presume that purchasers of Perta petroleum products that are claiming small refunds (\$5,000 or less, excluding accrued interest) were injured by the alleged overcharges. In the absence of compelling material, we will also presume that spot purchasers were not injured.<sup>4</sup> In addition, we find that end users or ultimate consumers of Perta petroleum products whose business operations are unrelated to the petroleum industry were injured by the alleged overcharges. Finally, we will not require a detailed demonstration of injury from regulated utilities or agricultural cooperatives that purchased Perta petroleum products and passed the alleged overcharges associated with those products through to their end-user members. Prior OHA decisions provide detailed explanations of the bases of these presumptions and findings. E.g., *Peterson Petroleum, Inc.*, 13 DOE ¶ 85,191 at 88,508-10 (1985). The rationale for their use was also fully explained in the PD&O. 50 FR 26611 at 26613-14 (June 27, 1985). These presumptions and findings will permit claimants to apply for refunds without incurring disproportionate expenses and will enable OHA to consider the refund applications in the most efficient way possible in view of the limited resources available.

A refiner, reseller or retailer that claims a refund in excess of \$5,000 will be required to document its injury. While there are a variety of methods by which a claimant might make such a showing, it is generally required to demonstrate (i) that it maintained a "bank" of unrecovered increased costs, and (ii) that market conditions did not permit it to pass on the increased costs to its customers in the form of higher prices.<sup>5</sup>

<sup>4</sup> The record in this proceeding reveals that Venture Trading (Venture) made only spot purchases from Perta. Venture will not be eligible for a refund unless it presents evidence that rebuts the spot purchaser presumption. In general, a spot purchaser must demonstrate that (i) the purchases were necessary to maintain supplies to base period purchasers; and (ii) it was forced by market conditions to resell the product at a loss that was not subsequently recouped. See, e.g., *Saber Energy, Inc./Mobil Oil Corp.*, 14 DOE ¶ 85,170 (1986).

<sup>5</sup> As we stated in the PD&O, unlike resellers and retailers, refiners were able to bank unrecovered non-product cost increases. 50 Fed. Reg. 26611 at 26613 (June 27, 1985). Therefore, a refiner attempting to prove injury in connection with an alleged credit term violation will have to demonstrate that it maintained a bank of unrecovered increased non-product costs. In the PD&O, we discussed the method by which a reseller or retailer would show

As stated above, we recognize that there may have been other first purchasers not identified by the ERA audit, as well as downstream purchasers, that may have been injured by Perta's pricing practices during the consent order period and would therefore be entitled to a portion of the consent order funds. If additional meritorious claims are filed, we will adjust the figures listed in the Appendix accordingly. Actual refunds will be determined only after analyzing all appropriate claims.

As in previous cases, only claims for at least \$15 will be processed. We have found through our experience in prior refund cases that the cost of processing claims for smaller amounts outweighs the benefits or restitution. See e.g., *Urban Oil Co.*, 9 DOE ¶ 82,541 (1982). See also 10 CFR 205.280(b).

## III. Applications for Refund

We have determined that by using the procedures described above, we can distribute the Perta consent order funds as equitably and efficiently as possible. Accordingly, we will now accept Applications for Refund from firms that purchased Perta refined petroleum products between August 1, 1973, and January 28, 1981. As we proposed, a portion of the consent order funds will be distributed to the firms listed in the Appendix provided that they file Applications for Refund and make any necessary demonstrations of injury. We will also grant refunds to any other purchasers or subsequent repurchasers of Perta refined petroleum products that apply for refunds and demonstrate injury.

In order to receive a refund, a claimant identified by ERA must submit either a schedule, broken down by product, of its monthly purchases of refined petroleum products from Perta or a statement verifying that it purchased refined petroleum products from Perta and is willing to rely on the data in the audit file. A purchaser not identified by ERA will be required to provide specific information as to the date, place, and volume of Perta petroleum products purchased as well as the name of the

injury with respect to such an alleged violation. However, since the two identified purchasers with settlement shares exceeding \$5,000 are refiners, that discussion will not be recounted here.

Refiners, resellers or retailers that claim a refund in excess of \$5,000 but which do not attempt to establish that they did not pass through the price increases will be eligible for a refund of up to \$5,000 without making a detailed demonstration of injury. Firms potentially eligible for greater refunds may choose to limit their claims to \$5,000. See *Vickers*, 8 DOE at 85,396. See also *Office of Enforcement*, 10 DOE ¶ 85,029 at 88,122 (1982) (*Ada*).

firm from which the purchase was made. All applicants must prove injury in accordance with the presumptions and findings outlined above.

In addition, all applications must state:

(1) Whether the applicant has previously received a refund, from any source, with respect to the alleged overcharges identified in the ERA audit underlying this proceeding;

(2) Whether there has been a change in ownership of the firm since the audit period. If there has been a change in ownership, the applicant must provide the names and addresses of the other owners, and should either state the reasons why the refund should be paid to the applicant rather than to the other owners or provide a signed statement from the other owners indicating that they do not claim a refund;

(3) Whether the applicant is or has been involved as a party in any DOE enforcement proceedings or private actions filed under section 210 of the Economic Stabilization Act. If these actions have been concluded the applicant should furnish a copy of any final order issued in the matter. If the action is still in progress, the applicant should briefly describe the action and its current status. The applicant must keep OHA informed of any change in status while its Application for Refund is pending. See 10 CFR 205.9(d); and

(4) The name and telephone number of a person who may be contacted by this Office for additional information.

Finally, each application must include the following statement: "I swear [or affirm] that the information submitted is true and accurate to the best of my knowledge and belief." See 10 CFR 205.283(c); 18 U.S.C. 1001.

All applications must be filed in duplicate and must be received within 90 days from the date of publication of this Decision and Order in the **Federal Register**. A copy of each application will be available for public inspection in the Public Reference Room of the Office of Hearings and Appeals. Any applicant that believes that its application contains confidential information must indicate this and submit two additional copies of its application from which the information has been deleted. All applications should refer to Case No. HEF-0148 and should be sent to: Office of Hearings and Appeals, Department of Energy, 1000 Independence Ave., SW., Washington, DC 20585.

It Is Therefore Ordered That:

(1) Applications for Refund from the funds remitted to the Department of Energy by Perta Oil Marketing Corporation pursuant to the Consent

Order executed on July 1, 1981, may now be filed.

(2) All applications must be filed no later than 90 days after publication of this Decision and Order in the **Federal Register**.

Dated: November 12, 1986.

George B. Breznay,  
Director, Office of Hearings and Appeals.

#### APPENDIX

First purchaser	Share of settlement <sup>1</sup>	Product purchased and type of violation alleged <sup>2</sup>	settlement share breakdown
Amorient Petroleum, 1920 Luggarway, Long Beach, CA 90813.	\$1,234.12	Fuel oil-credit.....	
ARCO Petroleum Products Co., 515 South Flower Street, Los Angeles, CA 90071.	5,188.13	Naphtha-credit.....	
Commonwealth Oil and Refining Co., Inc., 8626 Tesoro Drive, San Antonio, TX 78217.	1,196.65	Naphtha-credit.....	
Edgington Oil Co., Inc., 2400 East Artesia Blvd., Long Beach, CA 90805.	125,876.18	Fuel oil-price.....	\$97,708.30
Venture trading <sup>3</sup> 9701 Wilshire Boulevard, Beverly Hills, CA 90212.	1,328.02	Fuel oil-credit.....	28,167.88
		Fuel oil-credit.....	

<sup>1</sup> Not including interest that has accrued on the escrow account.

<sup>2</sup> A firm may have purchased additional products. Violations were alleged only on those listed.

<sup>3</sup> As stated in the body of the Decision, Venture Trading was a spot purchaser of Perta petroleum products. The firm will not be eligible for a refund unless it rebuts the presumption of non-injury.

[FR Doc. 86-26578 Filed 11-24-86; 8:45 am]

BILLING CODE 6450-01-M

#### ENVIRONMENTAL PROTECTION AGENCY

[OPTS-00073; FRL 3119-7]

#### Biotechnology Science Advisory Committee, Subcommittee on Environmental Release; Open Meeting

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of open meeting.

**SUMMARY:** There will be a 2-day meeting of the Biotechnology Science Advisory Committee's Subcommittee on Environmental Release to discuss the definition of environmental release.

The meeting will be open to the public.

**DATE:** The meeting will be held on Thursday and Friday, December 11 and 12, 1986, starting at 9 a.m. both days and ending at approximately 5 p.m. on December 12.

**ADDRESS:** The meeting will be held in Rm. 1112, Crystal Mall No. 2, 1921 Jefferson Davis Highway, Arlington, VA.

**FOR FURTHER INFORMATION CONTACT:** Elizabeth Milewski, Office of Pesticides and Toxic Substances (TS-788), Executive Secretary, Biotechnology Science Advisory Committee, Environmental Protection Agency, Rm.

E-645, 401 M St., SW., Washington, DC 20460, (202-382-2914).

**SUPPLEMENTARY INFORMATION:** This open meeting is being held to discuss the definition of environmental release. Attendance by the public will be limited to space available. Dr. Milewski will provide rosters of the committee members and additional information, upon request. A summary of the meeting will be available from her at a later date.

Dated: November 21, 1986.

John A. Moore,  
Assistant Administrator for Pesticides and Toxic Substances.

[FR Doc. 86-26697 Filed 11-24-86; 8:45 am]

BILLING CODE 6560-50-M

[OPPE-FRL-3117-9]

#### An Open Meeting of the Advisory Committee Negotiating Regulations Governing Major and Minor Modifications of Resource Conservation and Recovery Act (RCRA) Permits

As required by section 9(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463), we are giving notice of an open meeting of the Advisory Committee negotiating regulations governing major and minor modifications of Resource Conservation and Recovery Act (RCRA) permits.

The meeting will be held on Tuesday and Wednesday, December 16 and 17, 1986, at The Conservation Foundation, 1255 23rd Street, NW., First Floor Library, Washington, DC. On Tuesday, the meeting will start at 11:00 a.m. and will run until 5:00 p.m. On Wednesday, the meeting will start at 9:15 a.m. and will run until approximately 4:00 p.m. The purpose of the meeting is to continue work on the substantive issues which the Committee has identified for resolution. This will include a report from the Class Description Working Group and a review of the draft permit modification rating scheme.

If interested in receiving more information, please contact Kathy Tyson at (202) 382-5352.

Dated: November 20, 1986.

Milton Russell,  
Assistant Administrator for Policy, Planning  
and Evaluation.

[FR Doc. 86-26515 Filed 11-24-86; 8:45 am]  
BILLING CODE 6560-50-M

#### [OPPE-FRL-3118-1]

#### Extended Duration of the Advisory Committee Negotiating New Source Performance Standards for Residential Wood Combustion Units

As required by section 9(a)(2) of the Federal Advisory Committee Act (Pub. L. 92-463), we are giving notice that the termination date has been extended for the Advisory Committee negotiating new source performance standards for residential wood combustion units.

The termination date for the Committee will be extended until December 31, 1986. This extension will give the Committee members time to ratify the agreement they reached and have reduced to writing.

If interested in receiving more information, please contact Kathy Tyson at (202) 382-5352.

Dated: November 20, 1986.

Milton Russell,  
Assistant Administrator for Policy, Planning  
and Evaluation.

[FR Doc. 86-26516 Filed 11-24-86; 8:45 am]  
BILLING CODE 6560-50-M

#### [OPTS-59794; FRL-3118-3]

#### Certain Chemicals Premanufacture Notices

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** Section 5(a)(1) of the Toxic Substances Control Act (TSCA) requires any person who intends to manufacture

or import a new chemical substance to submit a premanufacture notice (PMN) to EPA at least 90 days before manufacture or import commences. Statutory requirements for section 5(a)(1) premanufacture notices are discussed in EPA statements of the final rule published in the *Federal Register* of May 13, 1983 (48 FR 21722). In the *Federal Register* of November 11, 1984 (49 FR 46066) (40 CFR 723.250), EPA published a rule which granted a limited exemption from certain PMN requirements for certain types of polymers. PMNs for such polymers are reviewed by EPA within 21 days of receipt. This notice announces receipt of five such PMNs and provides a summary of each.

**DATES:** Close of Review Period:

Y 87-30, 87-31, 87-32, 87-33 and 87-34—December 2, 1986.

#### FOR FURTHER INFORMATION CONTACT:

Wendy Cleland-Hamnett,  
Premanufacture Notice Management  
Branch, Chemical Control Division (TS-794), Office of Toxic Substances,  
Environmental Protection Agency, Rm. E-611, 401 M Street, SW., Washington, DC 20460 (202) 382-3725.

**SUPPLEMENTARY INFORMATION:** The following notice contains information extracted from the non-confidential version of the submission by the manufacturer on the exemptions received by EPA. The complete non-confidential document is available in the Public Reading Room NE-G004 at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, excluding legal holidays.

#### Y 87-30

*Manufacturer.* Confidential.  
*Chemical.* (G) Polyester diol.  
*Use/Production.* (S) Industrial component for industrial metal coating. Prod. range: 240,000 kg/yr.  
*Toxicity Data.* No data submitted.  
*Exposure.* No data submitted.  
*Environmental Release/Disposal.* No data submitted.

#### Y 87-31

*Manufacturer.* Confidential.  
*Chemical.* (G) Unsaturated polyester.  
*Use/Production.* (S) Clear gel coat for cultured marble. Prod. range: 106,000 to 133,000 kg/yr.  
*Toxicity Data.* No data submitted.  
*Exposure.* No data submitted.  
*Environmental Release/Disposal.* No data submitted.

#### Y 87-32

*Importer.* Confidential.  
*Chemical.* (G) Copolymer of butadiene and (meth)acrylic monomers.

*Use/Import.* (G) Binder for printing products. Import range: Confidential.  
*Toxicity Data.* No data submitted.  
*Exposure.* No data submitted.  
*Environmental Release/Disposal.* No data submitted.

#### Y 87-33

*Importer.* Confidential.  
*Chemical.* (G) Copolymer of butadiene and methacrylic monomers.  
*Use/Import.* (G) Binder for printing products. Import range: Confidential.  
*Toxicity Data.* No data submitted.  
*Exposure.* No data submitted.  
*Environmental Release/Disposal.* No data submitted.

#### Y 87-34

*Manufacturer.* Confidential.  
*Chemical.* (G) Methacrylic copolymer.  
*Use/Production.* (S) Industrial, commercial and consumer polymer for use in coatings, adhesives and ink. Prod. range: Confidential.  
*Toxicity Data.* No data submitted.  
*Exposure.* Confidential.  
*Environmental Release/Disposal.* Confidential.

Dated: November 14, 1986.

V. Paul Fuschini,  
Acting Division Director, Information  
Management Division.  
[FR Doc. 86-26519 Filed 11-24-86; 8:45 am]  
BILLING CODE 6560-50-M

#### [OPTS-51650; FRL-3118-4]

#### Certain Chemicals Premanufacture Notices

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** Section 5(a)(1) of the Toxic Substances Control Act (TSCA) requires any person who intends to manufacture or import a new chemical substance to submit a premanufacture notice (PMN) to EPA at least 90 days before manufacture or import commences. Statutory requirements for section 5(a)(1) premanufacture notices are discussed in EPA statements of the final rule published in the *Federal Register* of May 13, 1983 (48 FR 21722). This notice announces receipt of twenty-two such PMNs and provides a summary of each.

**DATES:** Close of Review Period:

P 87-195, 87-196, 87-197, 87-198, 87-199, 87-200, and 87-201—February 7, 1987.

P 87-202, 87-203, 87-204, 87-205, 87-206, 87-207, P 87-208, 87-209, 87-210, 87-211 and 87-212—February 9, 1987.

P 87-213, 87-214, 87-215 and 87-216—February 10, 1987.

Written comments by:

P 87-195, 87-196, 87-197, 87-198, 87-199, 87-200 and 87-201—January 8, 1987.

P 87-202, 87-203, 87-204, 87-205, 87-206, 87-207, 87-208, 87-209, 87-210, 87-211 and 87-212—January 10, 1987.

P 87-213, 87-214, 87-215 and 87-216—January 11, 1987.

**ADDRESS:** Written comments, identified by the document control number "[OPTS-51650]" and the specific PMN number should be sent to: Document Control Officer (TS-790), Confidential Data Branch, Information Management Division, Office of Toxic Substances, Environmental Protection Agency, Rm. E-201, 401 M Street, SW., Washington, DC 20460, (202) 382-3532.

**FOR FURTHER INFORMATION CONTACT:** Wendy Cleland-Hamnett, Premanufacture Notice Management Branch, Chemical Control Division (TS-794), Office of Toxic Substances, Environmental Protection Agency, Rm. E-611, 401 M Street, SW., Washington, DC 20460, (202) 382-3725.

**SUPPLEMENTARY INFORMATION:** The following notice contains information extracted from the non-confidential version of the submission provided by the manufacturer on the PMNs received by EPA. The complete non-confidential document is available in the Public Reading Room NE-G004 at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, excluding legal holidays.

#### P 87-195

**Manufacturer.** Confidential.

**Chemical.** (G) Silyl ketene acetal.

**Use/Production.** (S) Industrial polymerization initiator. Prod. range: Confidential.

**Toxicity Data.** Acute oral: 3.65 g/kg; Irritation: skin—Non-irritant, Eye—Slight.

**Exposure.** Manufacture: dermal, a total of 2 workers, up to 2 hrs/day, up to 5 days/yr.

**Environmental Release/Disposal.** 1 to 2 kg/batch released. Disposal by incineration.

#### P 87-196

**Manufacturer.** Confidential.

**Chemical.** (G) Silylated acrylic acid.

**Use/Production.** (G) Monomer in group transfer polymerization process. Prod. range: Confidential.

**Toxicity Data.** Acute oral: 2.25 g/kg; Irritation: Skin—Severe, Eye—Severe; Ames test: Negative.

**Exposure.** Manufacture: dermal, a total of 2 workers, up to 2 hrs/day, up to 8 days/yr.

**Environmental Release/Disposal.** Less than 100 kg/ released to air.

#### P 87-197

**Importer.** Confidential.

**Chemical.** (G) Perfluoroalkyl betaine.

**Use/Import.** (S) Industrial wetting agent in paints. Import. range: 600 to 2,000 kg/yr.

**Toxicity Data.** Acute oral: >12,000 mg/kg; Irritation: Eye—Non-irritant.

**Exposure.** Processing: dermal, a total of 500 workers, up to 8 hrs/day, up to 250 days/yr.

**Environmental Release/Disposal.** No release.

#### P 87-198

**Importer.** Confidential.

**Chemical.** (G)

Perfluoroalkylpolyoxyethylene.

**Use/Import.** (S) Industrial wetting agent in paints. Import. range: 300 to 1,000 kg/yr.

**Toxicity Data.** Acute oral: 6.0 ml/kg; Irritation: Skin—Slight, Eye—Non-irritant.

**Exposure.** Processing: dermal, a total of 500 workers, up to 8 hrs/day, up to 250 days/yr.

**Environmental Release/Disposal.** No release.

#### P 87-199

**Importer.** Confidential.

**Chemical.** (G)

Perfluoroalkylammonium iodide.

**Use/Import.** (S) Industrial wetting agent in paints. Import. range: 300 to 1,000 kg/yr.

**Toxicity Data.** Acute oral: 5,000 mg/kg; Irritation: Eye—Moderate.

**Exposure.** Processing: dermal, a total of 500 workers, up to 8 hrs/day, up to 250 days/yr.

**Environmental Release/Disposal.** No release.

#### P 87-200

**Importer.** Confidential.

**Chemical.** (G)

Perfluoroalkylpolyoxyethylene.

**Use/Import.** (S) Industrial wetting agent in paints. Import range: 300 to 1,000 kg/yr.

**Toxicity Data.** Acute oral: 6.0 ml/kg; Irritation: Skin—Slight, Eye—Non-irritant.

**Exposure.** Processing: dermal, a total of 500 workers, up to 8 hrs/day, up to 250 days/yr.

**Environmental Release/Disposal.** No release.

#### P 87-201

**Importer.** Confidential.

**Chemical.** (G)

Perfluoroalkylpolyoxyethylene.

**Use/Import.** (S) Industrial wetting agent in paints. Import range: 300 to 1,000 kg/yr.

**Toxicity Data.** Acute oral: 14,000 mg/kg; Irritation: Eye—Non-irritant.

**Exposure.** Processing: dermal, a total of 500 workers, up to 8 hrs/day, up to 250 days/yr.

**Environmental Release/Disposal.** No release.

#### P 87-202

**Manufacturer.** Confidential

**Chemical.** (G) Alkyl substituted cycloalkenoate.

**Use/Production.** (S) Site-limited intermediate. Prod. range: Confidential.

**Toxicity Data.** No data submitted.

**Exposure.** Manufacture: dermal, a total of 9 workers, up to 3.5 hrs/day, up to 9 days/yr.

**Environmental Release/Disposal.** 1,049 to 2,995 kg released to water with .5 kg to air. Disposal by on-site pretreatment plant.

#### P 87-203

**Manufacturer.** Confidential

**Chemical.** (G) Fatty acid amide of polyaminoalkyl silane ester.

**Use/Production.** (S) Component in sizing for glass fiber. Prod. range: Confidential.

**Toxicity Data.** No data on PMN substance submitted.

**Exposure.** Confidential.

**Environmental Release/Disposal.** Confidential.

#### P 87-204

**Manufacturer.** Wilmington Chemical Corporation.

**Chemical.** (G) Aqueous polyurethane dispersion.

**Use/Production.** (G) Coating open, non-dispersive use. Prod. range: Confidential.

**Toxicity Data.** No data submitted.

**Exposure.** Manufacture: dermal.

**Environmental Release/Disposal.** Release to air. Disposal by Resource Conservation and Recovery Act (RCRA).

#### P 87-205

**Manufacturer.** Confidential.

**Chemical.** (G) Polyurethane polymer.

**Use/Production.** (G) Shielded, non-dispersive use in disposable garments. Prod. range: Confidential.

**Toxicity Data.** No data submitted.

**Exposure.** Confidential.

**Environmental Release/Disposal.** Confidential.

#### P 87-206

**Manufacturer.** Confidential

**Chemical.** (G) Acrylic polymer.

*Use/Production.* (G) Surfactant. Prod. range: Confidential.

*Toxicity Data.* No data submitted.

*Exposure.* Manufacture: dermal, a total of 54 workers, up to 8 hrs/day, up to 23 days/yr.

*Environmental Release/Disposal.* 118 kg/batch released to water. Disposal by Publicly Owned Treatment Work (POTW).

**P 87-207**

*Importer.* Confidential.

*Chemical.* (G) Modified polyether polyol.

*Use/Import.* (S) Industrial and commercial co-reactant for 2-component polyurethane coating. Import range: 11,340 to 1,134,000 kg/yr.

*Toxicity Data.* No data submitted.

*Exposure.* No data submitted.

*Environmental Release/Disposal.* No release.

**P 87-208**

*Manufacturer.* Confidential.

*Chemical.* (G) Alkenes, reaction products with triglycerides and sulfur.

*Use/Production.* (G) Lubricant additive—contained use. Prod. range: Confidential.

*Toxicity Data.* Acute oral: 3,896 mg/kg; Irritation: Skin—Non-irritant, Eye—Primary irritant; Ames test: Negative.

*Exposure.* Confidential.

*Environmental Release/Disposal.* Confidential.

**P 87-209**

*Manufacturer.* E.I. du Pont de Nemours & Company, Inc.

*Chemical.* (G) Pentenenitrilo nickel (II) cyanoborate complex.

*Use/Production.* (G) Promoter (contained use). Prod. range: Confidential.

*Toxicity Data.* No data submitted.

*Exposure.* Manufacture: dermal, a total of 40 workers, up to 4 hrs/day, up to 180 days/yr.

*Environmental Release/Disposal.* Confidential.

**P 87-210**

*Manufacturer.* Confidential.

*Chemical.* (S) N-(1-aminopropyl)-hexahydro-2H-azepin-2-one.

*Use/Production.* (G) destructive use. Prod. range: Confidential.

*Toxicity Data.* No data submitted.

*Exposure.* Confidential.

*Environmental Release/Disposal.* Confidential.

**P 87-211**

*Manufacturer.* Confidential.

*Chemical.* (S) Aluminum, bis(2-propanolato) isooctanolato.

*Use/Production.* (G) Gelling agent in non-aqueous liquids. Prod. range: Confidential.

*Toxicity Data.* No data submitted.

*Exposure.* Manufacture: dermal, a total of 6 workers, up to 8 hrs/day, up to 5 days/yr.

*Environmental Release/Disposal.* No release.

**P 87-212**

*Importer.* Confidential.

*Chemical.* (G) Amine functional polydimethyl siloxane.

*Use/Import.* (G) Open, non dispersive use. Import range: Confidential.

*Toxicity Data.* Acute oral: 50 ml/kg; Irritation: Skin—Moderate, eye—Severe.

*Exposure.* No data submitted.

*Environmental Release/Disposal.* No data submitted.

**P 87-213**

*Manufacturer.* Confidential.

*Chemical.* (G) Alkyd polyester with coconut oil.

*Use/Production.* (G) Polymer having dispersive industrial use. Prod. range: 10,000 to 52,000 kg/yr.

*Toxicity Data.* No data submitted.

*Exposure.* Processing: dermal, a total of 42 workers, up to 8 hrs/day, up to 66 days/yr.

*Environmental Release/Disposal.* 3 to 200 kg/batch released to land. Disposal by incineration and sanitary landfill.

**P 87-214**

*Manufacturer.* Confidential.

*Chemical.* (G) Polyester with neopentyl glycol.

*Use/Production.* (G) Industrial used coating with dispersive use. Prod. range: 10,000 to 50,000 kg/yr.

*Toxicity Data.* No data submitted.

*Exposure.* Manufacture and processing: dermal, a total of 55 workers, up to 8 hrs/day, up to 24 days/yr.

*Environmental Release/Disposal.* 3 to 194 kg/batch released to land. Disposal by incineration and sanitary landfill.

**P 87-215**

*Manufacturer.* Confidential.

*Chemical.* (G) DMDAAC copolymer.

*Use/Production.* (G) Water treating chemical. Prod. range: Confidential

*Toxicity Data.* No data submitted.

*Exposure.* Confidential.

*Environmental Release/Disposal.* Confidential. Disposal by POTW.

**P 87-216**

*Importer.* Confidential.

*Chemical.* (G) Butanamide, N-(4'-substituted phenyl)-3-oxo-2-[[4-[(oxo-tetrasubstituted-heteropolycyclicylidene-amino)phenyl]].

*Use/Import.* (S) Industrial paint (car). Import range: 3,000 to 12,000 kg/yr.

*Toxicity Data.* No data submitted.

*Exposure.* No data submitted.

*Environmental Release/Disposal.* No data submitted.

Dated: November 14, 1986.

V. Paul Fuschini,

Acting Division Director, Information Management Division,

[FR Doc. 86-26520 Filed 11-24-86; 8:45 am]

BILLING CODE 6560-50-M

**[OPTS-59233; FRL 3118-2]**

**Reaction Product of Bisphenol A, Sulfuric Acid, and Acetic Anhydride; Test Market Exemption Application**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** EPA may upon application exempt any person from the premanufacturing notification requirements of section 5(a) or (b) of the Toxic Substances Control Act (TSCA) to permit the person to manufacture or process a chemical for test marketing purposes under section 5(h)(1) of TSCA. Requirements for test marketing exemption (TME) applications, which must either be approved or denied within 45 days of receipt, are discussed in EPA's final rule published in the Federal Register of May 13, 1983 (48 FR 21722). This notice, issued under section 5(h)(6) of TSCA, announces receipt of an application for exemption, provides a summary, and requests comments on the appropriateness of granting the exemption.

**DATE:** Written comments by: December 10, 1986.

**ADDRESS:** Written comments, identified by the document control number "[OPTS-59233]" and the specific TME number should be sent to: Document Control Officer (TS-790), Confidential Data Branch, Information Management Division, Office of Toxic Substances, Environmental Protection Agency, Rm. E-201, 401 M Street, SW., Washington, DC 20460, (202) 382-3532.

**FOR FURTHER INFORMATION CONTACT:** Wendy Cleland-Hamnett, Premanufacture Notice Management Branch, Chemical Control Division (TS-794), Office of Toxic Substances, Environmental Protection Agency, Rm. E-611, 401 M Street, SW., Washington, DC 20460, (202) 382-3725.

**SUPPLEMENTARY INFORMATION:** The following notice contains information extracted from the non-confidential

version of the submission provided by the manufacturer on the TME received by EPA. The complete non-confidential document is available in the Public Reading Room NE-C004 at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, excluding legal holidays

T 87-3

*Close of Review Period.* December 21, 1986.

*Importer.* Nachem Incorporated.  
*Chemical.* (S) Reaction product of bisphenol A, sulfuric acid and acetic anhydride.

*Use/Import.* (S) Tin plating quality. Import range: 0 to 15,000 lbs.

*Toxicity Data.* Acute dermal: 0.5 ml; Irritation: Skin-Irritant, Eye-Irritant.

*Exposure.* Use: a total of 1 worker, up to 3 shifts/day, up to 20 min/shift.

*Environmental Release/Disposal.* No data submitted.

Dated: November 14, 1986.

V. Paul Fuschini,

*Acting Director, Information Management Division.*

[FR Doc. 86-26518 Filed 11-24-86; 8:45 am]

BILLING CODE 6560-50-M

## FEDERAL EMERGENCY MANAGEMENT AGENCY

[FEMA-779-DR]

### Amendment to Notice of a Major-Disaster Declaration; Missouri

**AGENCY:** Federal Emergency Management Agency.

**ACTION:** Notice.

**SUMMARY:** This notice amends the notice of a major disaster for the State of Missouri (FEMA-779-DR), dated October 14, 1986, (published October 22, 1986, 51 FR 37492) and related determinations.

**DATED:** November 19, 1986.

**FOR FURTHER INFORMATION CONTACT:** Sewall H.E. Johnson, Disaster Assistance Programs, Federal Emergency Management Agency, Washington, DC 20472, (202) 646-3616.

### Notice

The notice of a major disaster for the State of Missouri, dated October 14, 1986, is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of October 14, 1986.

St. Charles County and the City of New Haven for Public Assistance.

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

Joe D. Winkle,

*Acting Deputy Associate Director, State and Local Programs and Support, Federal Emergency Management Agency.*

[FR Doc. 86-26499 Filed 11-24-86; 8:45 am]

BILLING CODE 6718-01-M

## FEDERAL MEDIATION AND CONCILIATION SERVICE

### Proposed Information Collection Submitted to OMB for Clearance

**AGENCY:** Federal Mediation and Conciliation Service.

**ACTION:** Notice.

**SUMMARY:** In accordance with the Paperwork Reduction Act of 1980 (44 U.S.C. Chapter 35) notice is hereby given of a proposed information collection from the public that was submitted to the Office of Management and Budget (OMB) for clearance. The collection document is a questionnaire which is to be sent to 140 work site labor-management committees established with the assistance of the Federal Mediation and Conciliation Service (FMCS). The purpose of the questionnaire, now under review by OMB, is to evaluate the effectiveness of FMCS activities in regard to work site labor-management committees. Information concerning the questionnaire may be obtained at the address shown below.

**DATE:** Comments on the proposal should be submitted to: Ted M. Chaskelson, Attorney-Advisor, Legal Services Office, Federal Mediation and Conciliation Service, 2100 K Street N.W., Washington, D.C. 20427.

**FOR FURTHER INFORMATION CONTACT:** Ted M. Chaskelson, (202) 653-5305.

Dated: November 19, 1986.

Dan W. Funkhouser,

*Director of Administrative Services.*

[FR Doc. 86-26476 Filed 11-24-86; 8:45 am]

BILLING CODE 7632-01-M

## FEDERAL RESERVE SYSTEM

[Docket No. R-0579]

### Automated Clearing House Float Recovery Proposals; Extension of Comment Period

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Extension of the comment period.

**SUMMARY:** On September 17, 1986, the Board requested public comment on

proposals regarding recovery of the costs of automated clearing house ("ACH") float (Docket No. R-0579). This request set forth a proposed method of recovering the costs of float generated by ACH transactions processed during the night cycle and a corresponding reduction in the current per item surcharge assessed on night cycle ACH transactions. Comments were due by November 21, 1986. In response to requests, the Secretary of the Board, acting pursuant to delegated authority, 12 CFR 265.2(a)(6), has extended the comment period for 30 days.

**DATE:** Comments must now be received by December 22, 1986.

**ADDRESS:** Comments, which should refer to Docket No. R-0579, may be mailed to the Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, N.W., Washington, D.C. 20551, to the attention of Mr. William W. Wiles, Secretary, or delivered to room B-2223 between 8:45 a.m. and 5:15 p.m. Comments may be inspected in room B-1122 between 8:45 a.m. and 5:15 p.m., except as provided in § 261.6(a) of the Board's Rules Regarding the Availability of Information, 12 CFR 261.6(a).

### FOR FURTHER INFORMATION CONTACT:

Earl G. Hamilton, Assistant Director (202/452-3879), Florence M. Young, Advisor (202/452-3955), or Julius F. Oreska, Manager (202/452-3878), Division of Federal Reserve Bank Operations; or Telecommunications Device for the Deaf ("TDD") users, Earnestine Hill or Dorothea Thompson (202/452-3544), Board of Governors of the Federal Reserve System, Washington, DC 20551.

By order of the Board of Governors of the Federal Reserve System, November 19, 1986.

William W. Wiles,

*Secretary of the Board.*

[FR Doc. 86-26507 Filed 11-24-86; 8:45 am]

BILLING CODE 6210-01-M

[Docket No. R-0583]

### Fee Schedules for Federal Reserve Bank Services

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Approval of a Private Sector Adjustment Factor and fee schedules for Federal Reserve Bank priced services for 1987.

**SUMMARY:** The Board of Governors has approved a Private Sector Adjustment Factor ("PSAF") for 1987 of \$70.9 million. This represents an increase of \$2.8 million, or approximately 4.1 per

cent, from the 1986 target PSAF of \$68.1 million. The PSAF is a recovery of imputed costs that takes into account the taxes that would have been paid and the return on capital that would have been provided had the Federal Reserve's priced services been furnished by a private business firm. The Board also approved 1987 fee schedules for the check collection, automated clearing-house, wire transfer of funds and net settlement, definitive securities safekeeping and noncash collection, and book-entry securities services.

**EFFECTIVE DATE:** The new PSAF will take effect on January 1, 1987. Fees for the automated clearing-house service will take effect on April 1, 1987; all other fees will take effect on January 1, 1987.

**FOR FURTHER INFORMATION CONTACT:** Earl G. Hamilton, Assistant Director (202/452-3879), or Paul W. Bettge, Analyst (202/452-3174), Division of Federal Reserve Bank Operations; Oliver I. Ireland, Associate General Counsel (202/452-3625), or Joseph R. Alexander, Senior Attorney (202/452-2489), Legal Division; or Earnestine Hill or Dorothea Thompson, Telecommunication Device for the Deaf (202/452-3244), Board of Governors of the Federal Reserve System, Washington, DC 20551.

#### **SUPPLEMENTARY INFORMATION:**

##### **Private Sector Adjustment Factor**

Section 11A of the Federal Reserve Act, 12 U.S.C. 248a, provides that fees for Federal Reserve services include "an allocation of imputed costs which takes into account the taxes that would have been paid and the return on capital that would have been provided had the services been provided by a private business firm. . . ." The Private Sector Adjustment Factor ("PSAF") is intended to reflect the imputed costs related to taxes and return on capital. As in past years,<sup>1</sup> the PSAF for 1987 is based on data developed in part from a model comprised of the nation's 25 largest bank holding companies.

Briefly stated, the methodology first entails determining the value of Federal Reserve assets that will be used directly in producing priced services during the coming year, including the net effect of assets planned to be acquired or disposed of during the year. Short-term assets are assumed to be financed by short-term liabilities; long-term assets are assumed to be financed by a combination of long-term debt and equity.

Imputed capital costs are determined by applying related interest rates and rate of return on equity derived from the bank holding company model to the assumed debt and equity values. These costs, together with imputations for estimated sales taxes, FDIC insurance assessment on clearing balances held with the Federal Reserve to settle for transactions, and expenses of the Board of Governors related to priced services, comprise the PSAF.

Details regarding the derivation of the PSAF are as follows:

##### *Asset Base*

The estimated value of Federal Reserve assets used in providing priced services in 1987 is reflected in Attachment 1. Attachment 2 shows that the value of assets assumed to be financed through debt and equity are projected to total \$393.8 million in 1987, an increase of \$43.3 million, or 12 per cent, from 1986. This increase results largely from capital expenditures for bank premises, furniture, and equipment planned by the Reserve Banks next year.

##### *Cost of Capital and Taxes*

Because of abnormal earnings performance by bank holding companies included in the model, the Board approved imputing the cost of equity capital for the PSAF in each of the last two years using a three-year average of rates of return on equity derived from the model. While earnings of the largest bank holding companies have improved recently, the Board does not believe that rates of return on equity have returned to long-term historical levels. For example, the pre-tax return on equity (adjusting for the effect of investments in tax-exempt securities) for the largest bank holding companies averaged 18.59 percent for 1985, compared with a rate of 19.13 per cent for the three-year period 1983-1985. The Board has therefore approved the three-year averaging technique for 1987 and using three-year averages for determining the cost of equity, imputed interest costs for long-term debt, and for income taxes.

Attachment 3 shows the interest, equity, and tax rates to be used in 1987 and compares them with the rates used for developing the PSAF for 1986. The sample of 25 bank holding companies used to calculate the rates of 1987 is the same as that used for the 1986 PSAF. One large bank holding company was again removed from the sample because of unique government oversight over bank management decisions during the past year, and the twenty-sixth largest bank holding company was substituted. The bank holding companies with the

highest and lowest rates of return on equity before taxes were also excluded, consistent with the methodology for determining the PSAF for the past three years. Calculations were then based on the remaining 23 bank holding companies.

##### *Other Imputed Costs*

As shown in Attachment 3, other required PSAF recoveries for 1987 for sales taxes, FDIC insurance, and Board expenses total \$10.6 million, down \$0.4 million from 1986. Most of the decrease is in imputed sales taxes, which is attributable primarily to the projected reduction in capital expenditures planned for 1987 over 1986. The decline is partially offset by an increase in imputed costs for FDIC insurance, resulting from the expected rise in clearing balances reflected in Attachment 1.

##### **1987 Fee Schedules**

The fees for priced services that were approved by the Board for 1986 were set to recover 102.7 per cent of the cost of providing such services, including the PSAF and cost of float. Through the first eight months of 1986, the System experienced a recovery rate of 104.0 per cent. The Board estimates that total costs including the PSAF for 1986 will be \$600.4 million and revenue will be \$623.1 million, resulting in a recovery rate of 103.8 per cent.

In 1987, the Board projects that total costs for priced services including the PSAF will be \$622.3 million and total revenue will be \$634.0 million, resulting in a 101.9 per cent recovery rate. The majority of the 1987 fees are the same as those in effect for 1986. In 1987, all Reserve Banks will be recovering actual costs and making some contribution to the PSAF for all locally priced services.

Discussion of the fee schedules for individual service categories follow:

##### *Commercial Check Collection*

Ninety-three per cent of the proposed 1987 prices for the check service are the same as those currently in effect. Fees for the Interdistrict Transportation System ("ITS") will remain unchanged, and these fees are projected to recover the ITS costs.

The proposed 1987 check collection fee schedules are contained in Attachment 4.

##### *Automated Clearing-House ("ACH")*

Attachment 5 shows the ACH fees approved by the Board to take effect on April 1, 1987.

In proposing these fees, the Reserve Banks projected that they would bring

<sup>1</sup> See 49 FR 11,251 (Mar. 26, 1984); 49 FR 44,556 (Nov. 7, 1984); 50 FR 47,624 (Nov. 19, 1985).

revenues of approximately \$33.9 million, 98.5 per cent of the projected \$34.4 million in costs (including PSAF) associated with the services. The Board, however, believes that Reserve Bank estimates of revenue and volume may be conservative and that full recovery is likely.<sup>2</sup>

The current basic transaction fees for processing automated transactions will be retained in 1987, and over 809 percent of the fees for nonautomated services will also remain. The Board has determined that automated return items, automated notifications of change, and prenotifications, which are not priced currently, will be priced beginning on April 1, 1987. This date is consistent with implementation of new ACH software at the Reserve Banks, which is necessary to implement fees for these services. All other ACH fees will also take effect on April 1, 1987.

#### *Funds Transfer and Net Settlement*

In 1987, funds transfer costs, including the PSAF, are projected to increase by \$2.1 million or 3.0 percent over 1986. The volume of basic funds transfers originated is expected to increase by 6.9 percent in 1987.

Based upon Reserve Bank cost and volume estimates for 1987, retaining the basic funds transfer fee of \$.55 would result in a recover rate of about 104 percent. In view of this projection, the Board has reduced the basic transfer fee to \$.50.<sup>3</sup>

In order to bring the fees for the various nonautomated services in line with costs, the Board has approved a \$.50 increase in all such fees.

Finally, fees for dedicated leased line and multi-drop electronic connections have been adjusted to reflect data communications costs more accurately. The dedicated connection fee has been increased from \$300 to \$400, and the multi-drop connection fee from \$225 to \$250. The dial connection type will continue to be priced at \$60, as this fee covers costs.

Attachment 6 shows the proposed funds transfer and net settlement fees for 1987.

#### *Definitive Securities Safekeeping and Noncash Collection*

Definitive securities safekeeping and noncash collection costs are expected to remain about the same in 1987. At the same time, total revenue is expected to decline slightly as a result of volume decreases. Definitive safekeeping volume is projected to decrease by about 3.5 percent and noncash collection volume by about 3.9 percent.

Because of these factors, the Board has approved the revised fee schedules for these services set out in Attachment 7.

The weighted average fee increase for definitive safekeeping in 1987 is 3.0 percent, with the majority of definitive safekeeping fees (85 percent) remaining unchanged. In three of the eleven Districts offering definitive safekeeping,

fee increases range from \$.05 to \$.60. The \$.60 increase involves one District's purchases and sales fee and brings it more in line with the average fee charged in the System for this activity. The weighted average fee increase in the noncash collection activity is 3.8 percent, with the majority of the fees (80 percent) remaining unchanged.

#### *Book-Entry Securities Services*

Although the 1986 book-entry recovery rate is expected to be 125.7 percent, the Board has postponed any changes to the book-entry fee schedule until the second quarter of 1987 because recent operational changes, such as the mid-1986 expansion of book-entry mortgage-backed securities to all Reserve Banks, have increased the cost of the book-entry service. The Reserve Banks believe that some of these costs may be due to the start up of new activities and may decline as they gain experience in handling these types of securities. The Board does not believe that the costs data available are adequate for making pricing decisions for all of 1987, and will review the book-entry fee schedule in the second quarter of 1987. Pending that review, fees for book-entry services will remain unchanged. The current book-entry fee schedule is shown in Attachment 8.

By order of the Board of Governors of the Federal Reserve System, November 5, 1986.  
William W. Wiles,  
Secretary of the Board.

### ATTACHMENT 1.—COMPARISON OF PRO FORMA BALANCE SHEETS FOR FEDERAL RESERVE PRICED SERVICES

[Millions of dollars—average for year]

	1987	1986
<b>Short-term assets:</b>		
Imputed reserve requirements on clearing balances.....	\$239.2	\$204.0
Investment in marketable securities .....	1,753.8	1,496.0
Receivables <sup>1</sup> .....	26.8	25.9
Materials and supplies <sup>1</sup> .....	4.4	4.2
Prepaid expenses <sup>1</sup> .....	4.2	4.2
Net items in process of collection (float) .....	363.5	334.0
<b>Total short-term assets.....</b>	<b>2,391.9</b>	<b>2,068.3</b>
<b>Long-term assets:</b>		
Premises <sup>1 2</sup> .....	229.6	191.0
Furniture and equipment <sup>1</sup> .....	126.8	123.4
Capital leases .....	1.8	0.2
Leasehold improvements <sup>1</sup> .....	2.0	1.8
<b>Total long-term assets.....</b>	<b>360.2</b>	<b>316.4</b>

<sup>2</sup> For example, the Reserve Banks forecasted only a 27.5 per cent increase in commercial volume, while a 30 per cent increase is likely in 1986. Also, the Banks anticipate a significant (12 per cent) decrease in paper return and notification of change

volumes. These transactions account for approximately 23 per cent of total ACH revenue. The Reserve Banks estimates are conservative in view of the almost 30 per cent increase in ACH volume anticipated in 1987.

<sup>3</sup> The basic funds transfer fee is assessed to both the institution originating and the institution receiving the funds transfer. Currently, both originator and receiver pay \$.55 for a funds transfer. Each would pay \$.50 less under the revised fee schedule.

# ATTACHMENT 1.—COMPARISON OF PRO FORMA BALANCE SHEETS FOR FEDERAL RESERVE PRICED SERVICES— Continued

[Millions of dollars—average for year]

	1987	1986
Total assets.....	2,752.1	2,384.7
Short-term liabilities:		
Clearing balances.....	1,993.0	1,700.0
Balances arising from early credit of uncollected items.....	363.5	334.0
Short-term debt <sup>3</sup> .....	35.4	34.2
Total short-term liabilities.....	2,391.9	2,068.3
Long-term liabilities:		
Obligations under capital leases.....	1.8	0.2
Long-term debt <sup>3</sup> .....	126.2	94.9
Total long-term liabilities.....	128.0	95.1
Total liabilities.....	2,519.9	2,163.4
Equity <sup>3</sup> .....	232.2	221.3
Total liabilities and equity.....	2,752.1	2,384.7

<sup>1</sup> Financed through PSAF; other assets are self-financing.<sup>2</sup> Includes allocations in Board of Governors' assets to priced services of \$600 thousand for 1987, and \$500 thousand for 1986.<sup>3</sup> Imputed figures; represent the source of financing for certain priced services assets.

NOTE.—Details may not add to totals due to rounding.

## ATTACHMENT 2.—DERIVATION OF THE 1987 PSAF

[Millions of dollars]

A. Assets to be Financed: <sup>1</sup>	
Short-term.....	\$5.4
Long-term <sup>2</sup> .....	358.4
	393.8
B. Weighted Average Cost:	
1. Capital Structure: <sup>3</sup>	
Short-term Debt.....	9.0%
Long-term Debt.....	32.0%
Equity.....	59.9%
2. Financing Rates/Costs <sup>3</sup> Average rates paid by the bank holding companies included in the sample:	
Short-term Debt.....	8.5%
Long-term Debt.....	10.2%
Pre-tax Equity <sup>4</sup> .....	19.1%
3. Elements of Capital Costs:	
Short-term Debt \$35.4*8.5%....	\$3.0
Long-term Debt 126.2*10.3%..	12.9
Equity 232.2*19.1%.....	44.4
	60.3
C. Other Required PSAF Recoveries:	
Sales Taxes.....	7.3
Federal Deposit Insurance Assessment.....	1.6
Board of Governors Expenses.....	1.7
	10.6
D. Total PSAF Recoveries.....	70.9
As a percent of capital.....	18.0%
As a percent of expenses <sup>5</sup> .....	15.8%

<sup>4</sup> The pre-tax rate of return on equity is based on average after-tax rates of return on equity for the bank holding company sample, adjusted by the effective tax rate to yield the pre-tax rate of return on equity. The 1987

figure for pre-tax equity and the tax rate are based upon a three-year average of these rates.

<sup>5</sup> Systemwide 1987 budgeted priced service expenses less shipping were \$450.3 million.

## ATTACHMENT 3.—CHANGES BETWEEN 1987 AND 1986 PSAF COMPONENTS

	1987	1986
A. Assets to be Financed (millions of dollars):		
Short-term.....	\$35.4	\$34.3
Long-term.....	358.4	316.2
	393.8	350.5
B. Cost of Capital:		
Short-term Debt Rate.....	8.5%	10.3%
Long-term Debt Rate.....	10.2%	10.3%
Pre-tax Return on Equity <sup>1</sup> .....	19.1%	19.8%
Weighted Average Cost of Capital.....	15.3%	16.3%
C. Tax Rate <sup>1</sup> .....	33.9%	37.6%
D. Capital Structure:		
Short-term Debt.....	9.0%	9.8%
Long-term Debt.....	32.0%	27.1%
Equity.....	59.0%	63.1%
E. Other Required PSAF Recoveries (millions of dollars):		
Sales Taxes.....	\$7.3	\$7.9
Federal Deposit Insurance Assessment.....	1.6	1.4
Board of Governors Expenses.....	1.7	1.7
	10.6	11.0
F. Total PSAF:		
Required Recovery.....	\$70.9	\$68.1
As Percent of Capital.....	18.0%	19.4%
As Percent of Expenses.....	15.8%	15.7%

<sup>1</sup> The 1987 figures for pre-tax equity and the tax rate are based on a three-year average of these rates:

	1983 (per- cent)	1984 (per- cent)	1985 (per- cent)	Average (per- cent)
Pre-tax equity rate.....	20.6	18.8	18.0	19.1
Tax rate.....	31.7	39.1	30.8	33.9

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<sup>1</sup> Priced service asset base is based on direct determination of assets method.

<sup>2</sup> Consists of total long-term assets less capital leases that are self-financing.

<sup>3</sup> All short-term assets are assumed to be financed by short-term debt. Of the total long-term assets, 35.2 percent are assumed to be financed by long-term debt and 64.8 percent by equity.

## ATTACHMENT 4.

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
CONSOLIDATED SHIPMENT AND DIRECT SEND INTERTERITORY DEPOSITS  
EFFECTIVE JANUARY 1, 1987

OFFICE	CITY			RCP			COUNTRY			Non-Machinable				
	Unsorted Basic	Prem.	Group Sort 3/ Basic	Fine Sort Basic	Prem.	Group Sort 3/ Basic	Fine Sort Basic	Prem.	Unsorted Basic		Prem.	Group Sort 3/ Basic	Fine Sort Basic	Prem.
BOSTON:														
Cash Letter Fee (\$ 1/	2.25	2.25		3.25										2.25
Item Fee(cent(s)/item)	1.7	3.0		0.7										16.0
Deposit Deadline 2/	0700	0830		0830										0830
MINNE(Boston):														
Cash Letter Fee (\$ 1/														2.25
Item Fee(cent(s)/item)														16.0
Deposit Deadline 2/														0830
LEWISTON:														
Cash Letter Fee (\$ 1/														2.25
Item Fee(cent(s)/item)														16.0
Deposit Deadline 2/														0830
WINDSOR Locks:														
Cash Letter Fee (\$ 1/														2.25
Item Fee(cent(s)/item)														16.0
Deposit Deadline 2/														0830
NEW YORK:														
Cash Letter Fee (\$ 1/	2.00	2.00	2.00	5.00										2.00
Item Fee(cent(s)/item)	3.5	5.0	2.5	1.0										25.0 5/
Deposit Deadline 2/	0700	0830	0830	0930										0830
BUFFALO:														
Cash Letter Fee (\$ 1/	2.00			4.50										2.00
Item Fee(cent(s)/item)	2.3			1.1										20.0 5/
Deposit Deadline 2/	0815			0930										0830
JERICHO:														
Cash Letter Fee (\$ 1/														2.00
Item Fee(cent(s)/item)														20.0 5/
Deposit Deadline 2/														0830
CRANFORD:														
Cash Letter Fee (\$ 1/														2.00
Item Fee(cent(s)/item)														20.0 5/
Deposit Deadline 2/														0830
UTICA:														
Cash Letter Fee (\$ 1/														2.00
Item Fee(cent(s)/item)														20.0 5/
Deposit Deadline 2/														0830
PHILADELPHIA:														
Cash Letter Fee (\$ 1/	2.75	2.75		3.50										2.75
Item Fee(cent(s)/item)	1.7	2.0		0.7										19.0
Deposit Deadline 2/	0700	0830		0830										0830

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
CONSOLIDATED SHIPMENT AND DIRECT SEND INTERTERITORY DEPOSITS  
EFFECTIVE JANUARY 1, 1987

2330K

OFFICE	CITY				RDC				COUNTRY			
	Unsorted Basic	Group Sort 3/ Basic	Fine Sort Basic	Prem.	Unsorted Basic	Group Sort 3/ Basic	Fine Sort Basic	Prem.	Unsorted Basic	Group Sort 3/ Basic	Fine Sort Basic	Non- Machinable
CLEVELAND:												
Cash Letter Fee (\$ 1/ Item Fee(Cents/Item)	3.50 1.7	3.50 2.5	3.00 0.8	1030	3.50 2.2	3.50 4.5	3.00 1.0	7.00 10.0				3.50 16.0 1030
Deposit Deadline 2/	0930	1030	1030		0001	0130	0300	0830				
Cincinnati:												
Cash Letter Fee (\$ 1/ Item Fee(Cents/Item)	3.50 1.7	3.50 2.5	3.00 0.8	0930	3.50 2.2	3.50 4.5	3.00 1.0	11.50 10.0				3.50 16.0 0930
Deposit Deadline 2/	0830	0930	0930		0001	0245	0315	0830				
Pittsburgh:												
Cash Letter Fee (\$ 1/ Item Fee(Cents/Item)	3.50 1.7	3.50 2.5	3.00 0.8	0930	3.50 2.2	3.50 4.5	3.00 1.0	9.00 10.0				3.50 16.0 0930
Deposit Deadline 2/	0830	0930	0930		0001	0330	0400	0830				
Columbus:												
Cash Letter Fee (\$ 1/ Item Fee(Cents/Item)	3.50 1.7	3.50 2.5	3.00 0.8	0900	3.50 2.2	3.50 4.5	3.00 1.0	9.00 10.0				3.50 16.0 0745
Deposit Deadline 2/	0745	0900	0900		0001	0230	0230	0800				
RICHMOND:												
Cash Letter Fee (\$ 1/ Item Fee(Cents/Item)	2.25 1.7	2.25 2.4	3.00 0.9	0900	2.25 2.2	2.25 4.4	3.00 1.2	22.25 11.0				2.25 10.0 1600
Deposit Deadline 2/	0900	0900	0900		0001	0245	0330/	0815				
Baltimore:												
Cash Letter Fee (\$ 1/ Item Fee(Cents/Item)	2.75 1.8	2.75 2.4	2.50 1.1	0830	2.75 2.3	2.75 4.4	2.50 1.1	16.75 8.0				2.75 10.0 0830
Deposit Deadline 2/	0700	0830	0830		0001	0315	0315/	0830				
Charlotte:												
Cash Letter Fee (\$ 1/ Item Fee(Cents/Item)	2.25 1.7	2.25 2.4	2.00 0.9	0900	2.25 2.1	2.25 4.8	2.00 1.0	15.00 10.0				2.25 10.0 0900
Deposit Deadline 2/	0900	0900	0900		0001	0245	0330/	0800				
Columbia:												
Cash Letter Fee (\$ 1/ Item Fee(Cents/Item)	2.50 1.8	2.50 2.4	2.25 1.0	0900	2.50 2.1	2.50 4.4	2.25 1.0	9.00 10.0				2.50 10.0 1600
Deposit Deadline 2/	0900	0900	0900		0001	0245	0330	0900				
Charleston:												
Cash Letter Fee (\$ 1/ Item Fee(Cents/Item)	3.00 1.9	3.00 2.2	3.00 1.1	0900	3.00 2.2	3.00 4.4	3.00 1.1	3.00 2.8				3.00 10.0 0900
Deposit Deadline 2/	0900	0900	0900		0001	0230	0300	0900				

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
CONSOLIDATED SHIPMENT AND DIRECT SEND INTERTERRITORY DEPOSITS  
EFFECTIVE JANUARY 1, 1987

OFFICE	CITY			RCP			COUNTRY			Non-Machinable	
	Unsorted Basic	Unsorted Prem.	Group Sort 3/ Basic	Fine Sort Basic	Fine Sort Prem.	Unsorted Basic	Unsorted Prem.	Group Sort 3/ Basic	Fine Sort Basic		Fine Sort Prem.
ATLANTA:											
Cash Letter Fee (\$ 1/ Item Fee(cents/item) 1/	2.00			2.00		2.00		2.00	2.00		2.00
Item Fee(cents/item) 1/	1.3			0.9		1.9		1.8	1.2		13.0
Deposit Deadline 2/	0900			0930		0001		2200	0300		0900
Birmingham:											
Cash Letter Fee (\$ 1/ Item Fee(cents/item) 1/	2.00			2.00		2.00		2.00	2.00		2.00
Item Fee(cents/item) 1/	1.3			0.8		1.9		1.5	1.0		13.0
Deposit Deadline 2/	0900			0900		0001		10/ 0200	0200		0900
Jacksonville:											
Cash Letter Fee (\$ 1/ Item Fee(cents/item) 1/	2.00			2.00		2.00		2.00	2.00		2.00
Item Fee(cents/item) 1/	1.2			0.7		1.9		1.5	1.1		13.0
Deposit Deadline 2/	0900			1000		0001		0001	0400		0900
Mashville:											
Cash Letter Fee (\$ 1/ Item Fee(cents/item) 1/	2.00	3.50		2.00		2.00		2.00	2.00		2.00
Item Fee(cents/item) 1/	1.5	2.1		0.9		2.1		1.2	1.2		13.0
Deposit Deadline 2/	0900	1000		1000		0001		0001	0200		0900
New Orleans:											
Cash Letter Fee (\$ 1/ Item Fee(cents/item) 1/	1.75			2.00		1.75		1.75	2.00		1.75
Item Fee(cents/item) 1/	1.2			0.8		2.0		1.5	1.2		11.0
Deposit Deadline 2/	0900			0900		0001		2100	0300		0900
Miami:											
Cash Letter Fee (\$ 1/ Item Fee(cents/item) 1/	2.00	3.00		2.00		2.00		2.00	2.00		2.00
Item Fee(cents/item) 1/	1.2	2.6		0.7		1.9		1.0	1.2		13.0
Deposit Deadline 2/	0600	0830		0830		0001		0001	0330		0830

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
CONSOLIDATED SHIPMENT AND DIRECT SEND INTER-TERRITORY DEPOSITS  
EFFECTIVE JANUARY 1, 1987

2330\*

OFFICE	CITY				RPC				COUNTRY			
	Unsorted Basic	Group Sort 3/ Basic	Fine Sort Basic	Prem.	Unsorted Basic	Group Sort 3/ Basic	Fine Sort Basic	Prem.	Unsorted Basic	Group Sort 3/ Basic	Fine Sort Basic	Non- Machinable
CHICAGO:												
Cash Letter Fee (\$ 1/	2.00	2.00	3.75		2.00	2.00	3.75					2.00
Item Fee(cents/item)	2.3	2.3	0.9		3.4	4.1	1.4					10.0
Deposit Deadline 2/	0630	0830	0730/		0001	0100	0300					0700
			12/									
Detroit:												
Cash Letter Fee (\$ 1/	2.50		2.75		2.50	3.00	2.75					2.50
Item Fee(cents/item)	1.7		0.7		2.2	4.0	1.1					7.7
Deposit Deadline 2/	0900		0900		0001	0215	0315					0900
Des Moines:												
Cash Letter Fee (\$ 1/	2.00		2.50		2.00	2.00	2.50					2.00
Item Fee(cents/item)	1.6		0.9		2.4	4.5	1.0					10.0
Deposit Deadline 2/	0800		0830		0001	0230	0315					0800
Indianapolis:												
Cash Letter Fee (\$ 1/	2.00		2.50		2.00	2.00	2.50					2.00
Item Fee(cents/item)	1.5		0.8		1.8	3.7	1.0					10.0
Deposit Deadline 2/	0900		1000		0001	0315	0400					0900
Milwaukee:												
Cash Letter Fee (\$ 1/	2.00		2.50		2.00	2.00	2.50					2.00
Item Fee(cents/item)	2.0		0.8		2.1	3.6	1.3					10.0
Deposit Deadline 2/	0915		0945		0100	0215	0400					0800
ST. LOUIS:												
Cash Letter Fee (\$ 1/	2.50		2.00		2.50	3.00	2.00					2.50
Item Fee(cents/item)	2.6		0.9		2.6	3.2	1.0					12.0
Deposit Deadline 2/	0800		1045/		0130	0300	0400		2.50	2.9	2200	0800
			1100									
Little Rock:												
Cash Letter Fee (\$ 1/	2.25		1.75		2.25	2.25	1.75					2.25
Item Fee(cents/item)	2.2		0.7		2.6	3.7	0.8					15.0
Deposit Deadline 2/	0900		1100		0001	0130	0200					0900
Louisville:												
Cash Letter Fee (\$ 1/	2.00		1.50		2.00	2.50	1.50					2.00
Item Fee(cents/item)	2.4		0.7		2.5	4.8	0.7					12.0
Deposit Deadline 2/	0815		0900		0001	0230	0300					0900
Memphis:												
Cash Letter Fee (\$ 1/	2.75		1.75		2.75	3.75	1.75					2.75
Item Fee(cents/item)	2.2		1.2		2.7	3.6	1.2					12.0
Deposit Deadline 2/	0800		0930		0001	0130	0430					0800

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
CONSOLIDATED SHIPMENT AND DIRECT SEND INTER-TERRITORY DEPOSITS  
EFFECTIVE JANUARY 1, 1987

2330K

OFFICE	CITY				RCHC				COUNHRT				Non-Machinable
	Group Sort 3/		Fine Sort		Group Sort 3/		Fine Sort		Group Sort 3/		Fine Sort		
	Basic	Prem.	Basic	Prem.	Basic	Prem.	Basic	Prem.	Basic	Prem.	Basic	Prem.	
MINNEAPOLIS: Cash Letter Fee (\$ 1/) Item Fee(cent/s/item) Deposit Deadline 2/	2.00	2.00	2.00	0.6	2.00	2.00	3.00	0.9	2.00	2.00	3.00	3.00	2.00
	1.8	2.5	2.7	4.1	2.7	4.1	0.9	0.6/1.4	7.0	3.4	1.4	1.9	10.0
	0800	0915	2.1/3.0	3.6/4.4	0.001	0230	0430	0430	0800	1230	1530/	0300	0800
			15/	15/	15/	15/	15/			16/	16/	19/	
Helena: Cash Letter Fee (\$ 1/) Item Fee(cent/s/item) Deposit Deadline 2/	2.00	2.00	2.00	1.50	2.00	2.00	2.25	1.4	30.00	2.00	3.00	3.00	2.00
	2.0		2.8	4.0	2.8	4.0	0.300		12.0	3.0	1.4	1.4	12.0
	1000		0001	1030	0001	0030	0300		0830	1200	1400	1400	1000
KANSAS CITY: Cash Letter Fee (\$ 1/) Item Fee(cent/s/item) Deposit Deadline 2/	1.75	1.75	2.20	0.8	6.75	7.50	6.75	3.0	6.75	1.75	2.50	2.50	1.75
	1.8	3.8	0.8		7.50		7.50	2.3/3.3	7.50	3.0	1.2	1.2	12.0
	0830	0930	0930		0830*		0830*		0830*	0001	0100	0100	0830
										21/	21/	21/	
Denver: Cash Letter Fee (\$ 1/) Item Fee(cent/s/item) Deposit Deadline 2/	1.75	1.75	2.00	0.5	1.75	1.75	2.00	0.5	6.75	1.75	2.00	2.00	1.75
	1.8		0.5		2.1	4.2	0.5	0.300	10.0	2.7	0.5	0.5	12.0
	0900		1000		0001	0130	0300		0815*	1300	1500	1500	0815
Oklahoma City: Cash Letter Fee (\$ 1/) Item Fee(cent/s/item) Deposit Deadline 2/	1.75	1.75	2.50	0.6	1.75	1.75	2.50	0.8	17.75	1.75	2.50	2.50	1.75
	1.7		0.6		2.1	3.4	0.8	0.515	8.0	2.3	0.9	0.9	8.0
	0900		1000		0400	0500	0515		0500*	0001	0100	0100	0900
Omaha: Cash Letter Fee (\$ 1/) Item Fee(cent/s/item) Deposit Deadline 2/	1.75	1.75	1.50	1.1	1.75	1.75	1.50	1.1	6.75	1.75	1.50	1.50	1.75
	1.9		1.1		2.3	2.8	1.1	0.230	10.00	2.9	1.4	1.4	10.0
	0900		1000		0030	0130	0230		0900*	1500	1600	1600	1900

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
CONSOLIDATED SHIPMENT AND DIRECT SEND INTERTERRITORY DEPOSITS  
EFFECTIVE JANUARY 1, 1987

2330K

OFFICE	CITY			RMC			COUNTY			Non-Machinable
	Unsorted Basic Prem.	Group Sort 3/ Basic Prem.	Fine Sort Basic Prem.	Unsorted Basic Prem.	Group Sort 3/ Basic Prem.	Fine Sort Basic Prem.	4/ HOGS	Unsorted Basic Prem.	Group Sort 3/ Basic Prem.	Fine Sort Basic Prem.
DALLAS:										
Cash Letter Fee (\$ 1/	2.00		2.50	2.00	2.00	2.50	10.00	2.00	2.00	2.50
Item Fee(Cents/Item)	1.8		0.9	2.3	3.5	1.1	7.5	2.9	2.3	1.1
Deposit Deadline 2/	0900		0930	0001	0115	0400	0830	1330	2000	2130
Houston:										
Cash Letter Fee (\$ 1/	2.00		2.50	2.00	2.00	2.50	10.00	2.00	2.00	2.50
Item Fee(Cents/Item)	1.8		0.9	2.3	3.5	1.1	7.5	2.9	2.3	1.1
Deposit Deadline 2/	0900		0930	0001	0115	0400	0900	1330	2000	2130
San Antonio:										
Cash Letter Fee (\$ 1/	2.00		2.50	2.00	2.00	2.50	10.00	2.00	2.00	2.50
Item Fee(Cents/Item)	1.8		0.9	2.3	3.5	1.1	7.5	2.9	2.3	1.1
Deposit Deadline 2/	0930		1030	0001	0115	0400	0900	1330	2000	2130
E1 Paso:										
Cash Letter Fee (\$ 1/	2.00		2.50	2.00	2.00	2.50	14.50	2.00	2.00	2.50
Item Fee(Cents/Item)	1.8		0.9	3.2	4.5	1.3	15.0	3.0	2.3	1.1
Deposit Deadline 2/	0915		1015	0001	0030	0230	0915	0001	22/	22/
SAN FRANCISCO:										
Cash Letter Fee (\$ 1/	2.00	2.00	3.00	2.00	2.00	3.00	14.50	2.00	2.00	2.50
Item Fee(Cents/Item)	2.2	2.0	0.6	2.5	4.3	0.8	15.0	3.0	2.3	1.1
Deposit Deadline 2/	0730	0800	1000	0001	0200	0500	0915	0001	0500	0500
Los Angeles:										
Cash Letter Fee (\$ 1/	2.00	2.00	3.00	2.00	2.00	3.00	14.50	2.00	2.00	2.50
Item Fee(Cents/Item)	2.2	2.0	0.6	2.5	4.3	0.8	15.0	3.0	2.3	1.1
Deposit Deadline 2/	0800	0830	1000	0001	0200	0500	0915	0001	0500	0500
Portland:										
Cash Letter Fee (\$ 1/	2.00		2.50	2.00	2.00	2.50	8.00	2.00	2.00	2.50
Item Fee(Cents/Item)	1.9		0.6	2.3	4.0	0.8	8.0	3.0	2.3	1.1
Deposit Deadline 2/	0900		0930	0001	0200	0400	0900	0001	0500	0500
Salt Lake City:										
Cash Letter Fee (\$ 1/	2.00		2.50	2.00	2.00	2.50	21.00	2.00	2.00	2.50
Item Fee(Cents/Item)	3.6		1.6	2.3	4.0	0.8	8.0	3.0	2.3	1.1
Deposit Deadline 2/	0930		1100	0001	0200	0500	0930	0001	0500	0500
Seattle:										
Cash Letter Fee (\$ 1/	2.00		2.50	2.00	2.00	2.50	21.00	2.00	2.00	2.50
Item Fee(Cents/Item)	1.9		0.6	2.3	4.0	0.8	8.0	3.0	2.3	1.1
Deposit Deadline 2/	0900		1000	0001	0200	0500	0930	0001	0500	0500

## ATTACHMENT 4

## FOOTNOTES:

1. This is a fixed charge that applies to each cash letter deposit.
2. Deposit deadline times are shown using military time, e.g., 2:30 a.m. = 0230 and 2:30 p.m. = 1430.
3. Contact the receiving Federal Reserve Office for details on Group Sort deposits.
4. The High Dollar Group Sort (HDGS) product is offered Tuesday through Friday. An asterisk beside the deadline indicates that service is also available on Monday.
5. Special charges for nonstandard nonmachineable items: \$1.50/item in New York, and \$1.00/item in Buffalo, Jericho, Cranford and Utica.
6. The deposit deadline varies by group of endpoints. Contact the receiving Federal Reserve Office for specific deposit deadlines and routing numbers.
7. The Cleveland Office offers a service (Sort Fourth) which accepts all Fourth District city and HDGS items in a single cash letter. Deadlines are at 0130 and 0300. Fees are \$4.75 per cash letter; 1.9¢ for Cleveland city items; 2.5¢ for other Fourth District city items; 25¢ for HDGS items. At the 0130 deadline Cleveland and premium RPCPC items may also be included in the cash letter for 4.5¢ per item.
8. Data cards required at later deposit deadline.
9. The 0315 deposit deadline applies to Maryland/West Virginia endpoints only - routing numbers 0521, 0522, 2521, and 2522.
10. Birmingham offers five different RPCPC group sorts: three have a deposit deadline at 0001; one group has a deposit deadline at 1900 and one at 2100. The item fee for four of these groups is 1.5¢; for the fifth group the fee is 1.7¢ per item.
11. RPCPC basic group sort shown at the 0001 deposit deadline is one group sort containing both City and RPCPC endpoints.
12. The 0730 deposit deadline applies to all Chicago Clearinghouse endpoints. The 0930 deposit deadline applies to selected large Chicago Clearinghouse endpoints.
13. The 1045 deposit deadline applies to St. Louis Clearinghouse endpoints only.
14. Unsorted country cash letters may be deposited for calculated availability. Item fee is 4.4¢ for immediate availability items and 3.4¢ on one-day deferred items. For calculated availability deposits cash letter fee is \$3.00 and the deposit deadline is 0230. Offered Tuesday through Friday.
15. Depositors have a choice of paying a single fee for each RPCPC item (2.7¢ at regular deadline, 4.1¢ at premium deadline and 0.9¢ for fine-sort) or paying a two-tier price shown in the next line. Use of two-tier pricing does not require additional sorting by the depositor.
16. The 1230 deposit deadline applies Monday through Thursday. The deposit deadline is 0001 on Saturday.
17. The 1500 deposit deadline applies Monday through Thursday. The deposit deadline is 0830 on Saturday.
18. The 1530 deposit deadline applies to South Dakota endpoints only. On Saturday an 0830 deadline applies to all country endpoints.
19. Select endpoints only. Offered Tuesday through Friday.
20. Kansas City offers a second city group at 1.3¢ per item at the same 0930 deposit deadline.
21. Depositors have a choice of paying a single fee for each country item (3.0¢ for regular unsorted deposits and 1.2¢ for fine-sort deposits) or paying a two-tier price shown on the next line. Use of two-tier pricing does not require additional sorting by the depositor.
22. The deposit deadline is 1700 on Sundays.
23. The 0400 deposit deadline applies to Alaska endpoints only.

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
MIXED DEPOSITS  
EFFECTIVE JANUARY 1, 1987

	<u>City</u>	<u>RCPC</u>	<u>Country</u>	<u>Other Fed</u>	<u>Deadlines</u>
BOSTON	2.8¢	2.8¢		6.0¢	0700/2100/0001
WINDSOR LOCKS		2.8¢		6.0¢	2100/0001
LEWISTON		2.8¢		6.0¢	2100/0001
NEW YORK	3.5¢		3.8¢	6.8¢ a/	2100/0001
BUFFALO	2.3¢	2.5¢		5.6¢ b/	0001/0200
JERICHO		2.6¢		5.2¢ b/	2000/0001
CRANFORD		2.6¢		5.2¢ b/	2200/0001
UTICA		2.5¢		5.2¢ b/	2000/0001/0130
PHILADELPHIA	1.8¢	2.5¢		4.1¢	2100/2300
CLEVELAND	1.7¢	2.2¢		c/	2100/2200/0001
CINCINNATI	1.7¢	2.2¢		c/	2000/2230/0001
PITTSBURGH	1.7¢	2.2¢		c/	2000/2130/0001
COLUMBUS	1.7¢	2.2¢		c/	2200/0001
RICHMOND	1.7¢	2.2¢		5.1¢	2115
BALTIMORE	1.8¢	2.3¢		5.2¢	2030/2330
CHARLOTTE	1.7¢	2.1¢		5.1¢	2130
COLUMBIA	1.8¢	2.1¢		5.2¢	2200
CHARLESTON	1.9¢	2.2¢		5.5¢	2115
ATLANTA	1.4¢	2.0¢		4.9¢	2130
BIRMINGHAM	1.4¢	2.0¢		4.7¢	2000
JACKSONVILLE	1.3¢	2.0¢		4.6¢	2130
NASHVILLE	1.6¢	2.2¢		5.0¢	2230
NEW ORLEANS	1.3¢	2.1¢		4.3¢	0001
MIAMI	1.3¢	2.0¢		4.3¢	1900
CHICAGO	2.3¢ d/	3.4¢ d/		5.7¢ d/	1830/2100/2300
DETROIT	2.2¢	2.2¢		5.3¢	2100/2315/0001
DES MOINES	1.7¢	2.5¢		5.0¢ e/	2000/2300
INDIANAPOLIS	1.6¢	1.8¢		4.9¢	2100/2300
MILWAUKEE	2.1¢	2.2¢		5.9¢	2130/2330/0001
ST. LOUIS	2.7¢	2.7¢	2.7¢	5.7¢	0800/1730/2000/0130
LITTLE ROCK	2.6¢	2.6¢		5.8¢	0900/1730/2000/0001
LOUISVILLE	2.5¢	2.5¢		5.6¢	0815/0001
MEMPHIS	2.7¢	2.7¢		6.8¢	0800/0001
MINNEAPOLIS	3.1¢	3.1¢	3.1¢ f/	6.3¢	0800/1230/1830/2200/0001

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
MIXED DEPOSITS  
EFFECTIVE JANUARY 1, 1987

	<u>City</u>	<u>RCPC</u>	<u>Country</u>	<u>Other Fed</u>	<u>Deadlines</u>
HELENA	2.1¢	2.9¢	3.1¢	6.0¢	0830/1900/0001
KANSAS CITY	2.0¢		3.2¢	6.2¢	0830/1330/1530/1800/2100/0001
DENVER	2.0¢	2.3¢	2.9¢	5.4¢	0900/1300/1430/2030/0001
OKLAHOMA CITY	1.9¢	2.3¢	2.5¢	6.5¢	0900/0400/0001
OMAHA	2.1¢	2.5¢	3.1¢	6.5¢	0900/1500/2000/0030
DALLAS	1.7¢	2.2¢	2.7¢	6.1¢	0900/1200/1900/0001
EL PASO	1.7¢	3.0¢		6.1¢	0915/1200/0001
HOUSTON	1.7¢	2.2¢		6.1¢	0900/1200/1900/0001
SAN ANTONIO	1.7¢	2.2¢		6.1¢	0930/1200/1900/0001
SAN FRANCISCO	4.1¢	4.1¢	4.1¢	4.1¢	0001
LOS ANGELES	4.1¢	4.1¢		4.1¢	0001
PORTLAND	3.9¢	3.9¢		3.9¢	0001
SALT LAKE CITY	3.9¢	3.9¢		3.9¢	0001
SEATTLE	3.9¢	3.9¢		3.9¢	0001

a/ For Second District items outside the local zone, NYC charges 3.8¢.

b/ For Second District items outside local zone, the charge is 2.9¢.

c/ All offices in the Fourth District charge based on the following five Other Fed groups:

A	4.0¢
B	4.5¢
C	5.0¢
D	6.0¢
E	7.0¢

d/ Add 0.1¢ to the price at the late deadline.

e/ Add 0.2¢ to the price at the late deadline.

f/ Country items which receive immediate credit are priced at 4.4¢.

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
OTHER FED SERVICES  
EFFECTIVE JANUARY 1, 1987

	Other Fed Unsorted		Other Fed Group		Other Fed Nonmachinable		HDGS SuperGroup		HDGS Cull From Mix	
	Price ¢	Deadline	Price ¢	Deadline	Price ¢		Price ¢		Price ¢	
Boston	5.4	0001			26					
Lewiston					26					
Windsor Locks	5.4	0001			26					
New York	6.8	2100	A 6.2	2230	30		19.5			
Buffalo	5.6	1000	B 6.0		25					
Jericho	5.2	2100	A 5.1	2200						
			B 4.5	0001						
Cranford	5.2	0001	A 5.2	2230						
	5.7	2200	B 4.4	0001						
			C 5.5	0001						
Utica	5.2	2000	A 5.1	2100						
			B 4.5	0001						
Philadelphia	4.4	2130	4.4	0001	32		18 Basic			
	4.2	2300					20 Premium			
Cleveland	* 2100/2200/0001		City 3.8	0130	29		35		35	
			RCPC 4.0	0130						
Cincinnati	* 2000/2230									
Pittsburgh	* 2000/2130/0001									
Columbus	* 2200/0001									
Richmond	5.1	1900	4.9	2115/2330	23.5		15			
Baltimore	5.2	2030/2330			30					
Charlotte	5.1	2130	5.1	2130	20		15		20	
Columbia	5.2	2230								

\* Each of the offices in the Fourth District prices unsorted Other Fed work based on the following five groups:

A 4.0  
B 4.5  
C 5.0  
D 6.0  
E 7.0

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
OTHER FED SERVICES  
EFFECTIVE JANUARY 1, 1987

	Other Fed Unsorted		Other Fed Group		Other Fed Nonmachinable	HDGS SuperGroup	HDGS Cull From Mix
	Price ¢	Deadline	Price ¢	Deadline	Price ¢	Price ¢	Price ¢
Charleston	5.5	2115	5.4	2115	30		
Atlanta	4.3	2130	4.2	2200	23		
Birmingham	4.6	1900	A 3.2	2000	23	12	
			B 3.6	2100			
			C 4.6	2300			
			D 3.2	1000			
			E 3.6	1000			
Jacksonville	4.5	2300	A 3.8	2130	23	15.3	
			B 1.8	2300			
			C 3.5	1200			
			D 4.3	1600			
Nashville	1.9	2230	A 3.9	1830	25		38
			B 3.2	1830			
			C 3.5	1830			
New Orleans	4.2	1615	A 4.9	1615	22.2		
			B 3.9	2000			
			C 4.4	2230			
			D 3.5	1300			
			E 2.3	2000			
Miami	4.2	1300	A 3.2	0001	23		
			B 3.8	2200			
			C 4.4	1930			
			D 2.0	0001			
Chicago	5.7	1830/2100/2300			30		35
Detroit	5.2	2100/2315/0001			30		35
Des Moines	5.0	2000/2200			25		30
	5.2	0001					
Indianapolis	4.8	2100/2300			24		30
Milwaukee	5.8	2130/2330/0001			25		30
St. Louis	5.7	1700/2000			30.4		
Little Rock	5.8	1730/0030	4.8	1730/0030/2000	21.9		
Louisville	5.6	0001	5.3	0001	21		
Memphis	6.8	1300			21.6		

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
OTHER FED SERVICES  
EFFECTIVE JANUARY 1, 1987

	Other Fed Unsorted		Other Fed Group		Other Fed Nonmachinable		HDGS SuperGroup		HDGS Cull From Mix	
	Price ¢	Deadline	Price ¢	Deadline	Price ¢		Price ¢		Price ¢	
Minneapolis	6.3	1230/1830/2200			20					
Helena	5.9	0830/1900			20					
Kansas City	6.0	1330/1530/1800			26.5					
Denver	5.2	1430/2030			30.6					
Oklahoma City	6.3	1830			14.4					
Omaha	6.3	2130	5.3	2200	14.5					
Dallas	6.0	1200/1900			30.7					
El Paso	6.0	1200								
Houston	6.0	1200/1900								
San Antonio	6.0	1200/1900								
San Francisco	5.6	1400	4.5	1/	30					
Los Angeles	5.6	1400	4.5	1/	30					
Portland	5.5	1200	4.3	1/	30					
Salt Lake City	5.5	2030	4.3	2145	30					
Seattle	5.5	1200	4.3	1/	30					

1/ Deadline depends on composition of the group.

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
PAYOR BANK SERVICES  
EFFECTIVE JANUARY 1, 1987

OFFICE	MICR CAPTURE		PER ITEM	REJECTS	FINE SORTED ITEMS	TRANSMISSION: SURCHARGE	ITEM OUTSORT	
	FEE PER DAY FIXED	MIN.					PER POCKET	PER ITEM
BOSTON DIST	\$20.00		\$0.001		\$0.012		\$100.00	\$0.001
NEW YORK OFFICE		\$25.00	0.001		0.023	\$50 min. &	\$150.00	0.001 OVER 25,000
OTHER 2ND DIST OFFICES		\$75.00	0.001		0.012	.005/ item over 5000	\$25-\$75	
PHILADELPHIA			0.001	\$0.06	0.014 \$1.50/PKG	\$0.004	\$30.00 MIN	0.001
				0.01 surcharge to microfilm				
CLEVELAND DIST		\$10.00	0.003		0.011	no charge	\$25.00	
				0.005 premium				
RICHMOND DISTRICT			0.003		0.011 \$1/PKG	0.004	\$50.00	0.002
				0.01 surcharge to microfilm at Richmond				
ATLANTA		\$15.00	0.002	0.25		0.002		
				0.006 surcharge to microfilm				
BIRMINGHAM		\$25.00	0.0025	0.25		0.002		
JACKSONVILLE		\$25.00	0.0025			0.004		
MIAMI		\$15.00	0.002			0.002		
NASHVILLE		\$15.00	0.0015	0.10		0.0015		0.0005 \$13 min.
NEW ORLEANS	\$15.00		0.0025	0.25		0.002		
CHICAGO DIST		\$20.00	0.003		0.028 \$50.00 MIN	.003 & \$20 min	\$100.00	
ST LOUIS	\$25.00		0.001	0.10	0.013		\$25.00	0.001
LITTLE ROCK	\$15.00		0.001		0.012		\$25.00	0.001
LOUISVILLE	\$15.00		0.001		0.012		\$25.00	0.001
MEMPHIS	\$15.00		0.001	0.10	0.012		\$25.00	0.001
MINNEAPOLIS		\$15.00	0.003		0.017 \$22.00 MIN	\$12 min.	\$25.00	0.002 OVER 200,000
HELENA		\$10.00	0.0043	0.196		no charge		0.0035
KANSAS CITY							\$25.00	0.001
DENVER	\$25.00		0.0005		0.009 \$5.00 MIN		\$25.00	0.001
OKLAHOMA CITY	\$25.00		0.0005		0.009 \$5.00 MIN		\$25.00	0.001
OMAHA	\$25.00		0.0005		0.009 \$5.00 MIN		\$25.00	0.001
DALLAS DIST							\$75.00	0.0015
SAN FRANCISCO DIST	\$25.00		0.001	\$500/mo. fixed & 0.002				

ATTACHMENT 4  
FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
PAYOR BANK SERVICES  
EFFECTIVE JANUARY 1, 1987

## ACCOUNT TOTALS

OFFICE	BASIC ACCOUNT FEES	PER ITEM	REJECTS	FINE SORTED ITEMS	OUTPUT: TAPE	HARD COPY	NOTIFICATION BY: TELEPHONE	WIRE	DATA COMMUNICATION
BOSTON DIST	\$150/mo. & \$5/acct over 10		\$0.50	0.012		Incl in base fee \$2/acct over 10	\$100/mo. & \$2/acct over 10		\$150/mo.
NEW YORK DIST	\$1/acct/day & \$28 min			0.023	\$40 fixed & \$.10/acct over 50	Incl in base fee \$1/acct & \$28 min	\$1/acct & \$28 min	\$50 min. & \$.25/acct over 50	
PHILADELPHIA	\$.56/acct/day		0.06	0.014	\$1.50/pkg	\$20	\$.50/acct & \$15 min	\$.75/acct & \$20 min	\$25/day A surcharge of \$75/day the first year applies to cover development costs.
CLEVELAND DIST	\$.25/acct/day			0.011			\$.25/acct & \$10 min	\$.25/acct & \$8 min	
RICHMOND DIST	\$25/day & \$.25/acct over 20			0.011	\$1/pkg at Richmond	\$10	\$15/day		
ATLANTA DIST	\$.50/acct/day & \$10-\$25 min	0.0015					\$3	\$.55	
CHICAGO DIST	\$1/acct/day & \$30 min			0.025 & \$50 min		\$1/acct & \$30 min	\$1/acct, \$30 min		
ST LOUIS	\$25/day	0.001	0.10	0.013		\$25			
LITTLE ROCK	\$25/day	0.001		0.012		\$15			
LOUISVILLE	\$25/day	0.001		0.012		\$15			
MEMPHIS	\$25/day	0.001	0.10	0.012		\$15			
MINNEAPOLIS	\$10/day & \$.50/acct over 10								
HELENA	\$150/mo & \$8/acct over 10		0.196				Included in base fee.		
KANSAS CITY	\$.50/acct/day & \$5 min	0.0005		0.009	\$5 min				
DENVER	\$.50/acct/day & \$5 min	0.0005		0.009	\$5 min				
OKLAHOMA CITY	\$.50/acct/day & \$5 min	0.0005		0.009	\$5 min				
OMAHA	\$.50/acct/day & \$5 min	0.0005		0.009	\$5 min				
DALLAS DIST	\$.50/acct/day & \$20 min		\$15/day & \$1 ea >20		.001/line & \$20 min	no charge	\$15/day, \$.50/acct over 30 accts		
SAN FRANCISCO DIST	\$300/mo & \$12/acct over 10								

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
OTHER SERVICES  
EFFECTIVE JANUARY 1, 1987

Return Item Notification

	<u>System</u>
On-line wire notification	\$2.25
Off-line telephone notification	\$4.25
Off-line physical item return	\$4.25

Other Priced Return Services

	<u>Kansas City</u>	<u>Dallas</u>	<u>St. Louis</u>	<u>Atlanta</u>
Clearinghouse returns	\$.275	N/A	N/A	
Physical Return	N/A	\$.50	N/A	
Automated Return	N/A	\$.25	N/A	
Accelerated Returns	N/A	N/A	\$.085/\$1.50M	\$.10/\$5.00M

Truncation Pilot

	<u>New York</u>	<u>Philadelphia</u>	<u>Richmond</u>	<u>Atlanta</u>
Basic Service 1/	\$ .020	\$ .016	\$ .015	\$ .015
Fine sort - item	\$ .023	\$ .020	\$ .018	\$ .018
- package	\$ 1.00	\$ 1.50	\$ 1.00	\$ 1.00
Return Items	--	--	\$ 2.75 <u>2/</u>	--
- telephone	\$ 2.95	\$ 2.95	N/A	\$2.95
- automated	\$ 2.25	\$ 2.25	N/A	\$2.65
Retrievals	\$ 1.00	\$ 1.00	\$ 1.25	\$1.00
Data Transmission	\$ .005	\$ .004	\$ .004	\$ .002
Per Tape			\$10 F	

Share Draft TruncationKansas City

Basic Service 3/      \$.015/item

MicrofilmingAtlanta Office

Front-end      \$.006/item  
Back-end      \$.006/item

F- Fixed Fee      M - Minimum Fee

1/ Includes MICR capture, reject reentry, backend microfilming, storage and destruction.

2/ The same fee applies regardless of the method of notification.

3/ Includes MICR capture, data transmission, backend microfilming, and delivery of paper items.

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
OTHER SERVICES  
EFFECTIVE JANUARY 1, 1987

Special Settlement ServicesMinneapolis

Clearinghouse Settlement	\$6,500/mo.
- semi automated	\$2,500/mo.

Remote Fine SortKansas CityDallas

Per item	\$ .018	\$ .009
Per Package	\$3.50	\$2.50

Supplemental Interterritory TransportationMinneapolis

Per Other Fed Destination	\$6 - \$12
Per item	\$ .003

Priced Incoming Transportation Relays

<u>Office</u>	<u>Relay</u>	<u>Fee</u>
Utica	Albany	\$10/day/user
Utica	Rochester	.8¢/day
Cleveland	Toledo/Findlay	Actual
Pittsburgh	Wheeling	\$4.81/day/user
Pittsburgh	Erie	\$4.81/day/user
Cincinnati	Dayton	\$2.50/day/user
Cincinnati	Lexington	\$2.58/day/user
Detroit	all relays	1 - 3,000 items \$19/day 3,001 - 5,000 items \$23/day 5,001 - 10,000 items \$35/day over 10,000 items \$85/day
Portland	S. Oregon	\$24/month/user
Seattle	Bellingham	Actual
Seattle	Spokane	Actual

## ATTACHMENT 4

FEDERAL RESERVE SYSTEM  
CHECK COLLECTION SERVICE AND FEE SCHEDULE  
OTHER SERVICES  
EFFECTIVE JANUARY 1, 1987

Foreign ItemsPhiladelphia

Participating as pilot Federal Reserve Bank. Fee is currently being determined by RFP process.

BILLING CODE 6210-01-C

**ATTACHMENT 5.—FEDERAL RESERVE SYSTEM, AUTOMATED CLEARING HOUSE SERVICE AND FEE SCHEDULE, NATIONALLY ESTABLISHED AUTOMATED FEES, EFFECTIVE APRIL 1987<sup>1 2</sup>**

	Transaction fees (cents)
Origination:	
Intra-ACH .....	1.0
Intra-Addenda .....	.2
Inter-ACH .....	
Unsorted .....	1.8
Presort Consolidated .....	1.2
Presort Direct Send .....	1.0
Inter-Addenda .....	.3
Receipt:	
Intra-ACH .....	1.0

**ATTACHMENT 5.—FEDERAL RESERVE SYSTEM, AUTOMATED CLEARING HOUSE SERVICE AND FEE SCHEDULE, NATIONALLY ESTABLISHED AUTOMATED FEES, EFFECTIVE APRIL 1987<sup>1 2</sup>—Continued**

	Transaction fees (cents)
Intra-Addenda .....	.2
Inter-ACH .....	1.8
Inter-Addenda .....	.3
New York .....	1.2
	Other fees
File processing .....	\$1.00

<sup>1</sup> Effective April 1987, the following Automated Clearing House transactions will be billed as regular items: Corporate Trade Payments (CTP), Corporate Trade Exchange (CTX), Depository Institution Automated Returns (RET), Depository Institution Automated Notification of Changes (COR), and Prenotifications.

<sup>2</sup> Night cycle processing surcharges are currently 6.0¢ for debit transactions and 3.0¢ for next day credits. These fees may be lowered at a later date to reflect float recovery through some other means, e.g., a float factor.

**ATTACHMENT 5.—FEDERAL RESERVE SYSTEM, AUTOMATED CLEARING HOUSE SERVICE AND FEE SCHEDULE, LOCALLY ESTABLISHED NONAUTOMATED FEES, EFFECTIVE APRIL 1987**

	Tapes billed fee	Non-electronic delivery fee	Messenger pickup fee	Telephone <sup>1</sup> advice fee	Common paper returns & NOC fee	Diskette output fee
Boston .....	\$3.00	\$3.50	\$2.50	\$2.50	\$3.50	\$2.00
New York .....	3.00	3.50	3.00	2.50	3.00	
Philadelphia .....	3.00	3.50	2.50	2.50	2.75	
Cleveland .....	3.50	4.50	4.50	3.00	3.50	
Richmond .....	3.50	4.00	3.00	2.50	3.00	2.50
Atlanta .....	3.00	3.50	2.50	3.50	2.75	3.00
Chicago .....	3.50	4.50	3.00	3.00	3.50	3.00
St. Louis .....	3.50	4.50	3.00	3.50	2.75	
Minneapolis .....	3.50	4.00	3.00	3.50	3.50	
Kansas City .....	3.50	3.50	2.50	3.00	3.00	
Dallas .....	3.50	4.50	3.00	3.50	3.50	
San Francisco .....	3.50	4.50	3.00	3.50	3.50	2.00

<sup>1</sup> Additional pieces of telephone information have been uniformly priced at 5.0¢.

**ATTACHMENT 6**

**FEDERAL RESERVE SYSTEM, WIRE TRANSFER AND NET SETTLEMENT SERVICE 1987 FEE SCHEDULE**

	Fees
Wire transfer of funds:	
Basic transfer originated.	\$0.50.
Basic transfer received.	\$0.50.

**ATTACHMENT 6.—Continued**

	Fees
Off-line origination .....	\$6.00.
Telephone advice .....	\$3.50.
Net settlement: <sup>1</sup>	
Settlement entry .....	\$1.30.
Off-line settlement .....	\$8.00.
Telephone advice .....	\$3.50.
Electronic connections:	
Dedicated leased line.	\$400 per month.

**ATTACHMENT 6.—Continued**

	Fees
Multi-drop leased line.	\$250 per month.
Dial-up .....	\$60 per month.

<sup>1</sup> In cases where net settlement arrangements resulted in higher operating costs than those incurred for standard arrangements, the Reserve Banks may establish higher fees.

BILLING CODE 6210-01-M

ATTACHMENT 7  
1987 Price Schedule  
Definitive Safekeeping

	Receipts/Issues										Purchases		Re-		Per Month	
	Deposits		Withdrawals		1-400		Per Month		400+		And Sales		Registrations		Per \$1,000	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987 1/
Boston	12.50	12.50	12.50	12.50	2.90	2.90	2.90	2.20	2.20	2.20	15.00	15.00	12.50	12.50	-	-
New York	40.00	40.00	40.00	40.00	5.35	5.35	4.75	4.75	4.75	4.75	23.00	23.00	40.00	40.00	0.0050	0.0050
Philadelphia 2/	16.00	16.00	16.00	16.00	3.25	3.25	2.25	2.25	2.25	2.25	20.00	20.00	20.00	20.00	-	-
Cleveland	15.00	15.00	15.00	15.00	2.00	2.00	1.50	1.50	1.50	1.50	25.00	25.00	15.00	15.00	0.0050	0.0050
Richmond	15.00	15.00	15.00	15.00	1.95	1.95	1.45	1.45	1.45	1.45	20.00	20.00	15.00	15.00	-	-
Atlanta 3/	0.00	0.00	7.00	7.00	*see below	*see below	*see below	*see below	*see below	*see below	0.00	0.00	5.00	5.00	-	-
Chicago	15.00	15.00	15.00	15.00	4.00	4.00	3.00	3.00	3.00	3.00	22.00	22.00	15.00	15.00	-	-
Detroit 4/	15.00	15.00	15.00	15.00	3.00	3.00	2.75	2.75	2.75	2.75	0.00	0.00	15.00	15.00	-	-
St. Louis	18.00	18.00	18.00	18.00	2.50	3.10	1.50	1.50	1.55	1.55	0.00	0.00	20.00	20.00	-	-
Minneapolis	11.50	13.50	11.50	13.50	1.85	2.50	0.75	1.50	1.50	1.50	15.00	21.00	11.50	13.50	-	-
Kansas City	15.00	15.00	15.00	15.00	2.50	3.00	2.25	2.50	2.50	2.50	20.00	25.00	15.00	15.00	-	-
Dallas	10.00	10.00	10.00	10.00	2.25	2.25	2.00	2.00	2.00	2.00	26.50	26.50	10.00	10.00	0.0080	0.0080

<sup>1/</sup> Applied to coupon bearing securities only.

<sup>2/</sup> Philadelphia imposes a \$2.25 receipt fee for all registered securities. This is to recognize the lower handling costs of registered securities versus bearer securities.

<sup>3/</sup> Atlanta has a three tier structure: 1-500 receipts at \$2.50 in 1986/1987; 500-1000 at \$2.00 in 1986/1987; and 1000+ at \$1.50 in 1986/1987.

<sup>4/</sup> For depository institutions maintaining more than 100 receipts, Detroit fees are as follows and include the collection of coupons: 1-100 receipts at \$3.50 in 1986/1987; over 100 receipts at \$3.00 in 1986/1987.

## ATTACHMENT 7

1987 Price Schedule  
Noncash Collection  
(For Banks Not Offering A Mixed Deposit Product)

	Local Coupons		Add-On Fee for Interdistrict Coupons		Postage and Insurance <sup>1/</sup>		Return Items		Bond Redemptions And Sales <sup>2/</sup>			
	City	Country	1986	1987	1986	1987	1986	1987	1986	1987		
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987		
Boston	\$2.00	\$2.00	\$2.00	\$2.00	\$2.75	\$2.75	\$1.00	\$1.00	\$ 3.00	\$ 3.00	\$12.50	\$12.50
New York	3.00	3.00	4.50	4.50	5.50	5.50	0.75	0.75	10.00	10.00	40.00	40.00
Philadelphia	2.90	2.90	2.90	2.90	3.45	3.45	1.00	1.00	10.00	10.00	20.00	20.00
Richmond	2.00	2.00	2.00	2.00	3.50	3.50	1.00	1.00	5.00	10.00	20.00	20.00
Chicago <sup>3/</sup>	5.00	5.00	5.00	5.00	3.25	3.25	1.00/ 2.00	1.00/ 2.00	10.00	10.00	20.00	20.00
Detroit	2.75	2.75	3.50	3.50	3.00	3.00	0.00	0.00	10.00	10.00	15.00	15.00
Minneapolis <sup>4/</sup>	2.50	4.25	2.50	4.25	3.50	4.40	0.60	0.00	10.00	10.00	11.50	15.00
Kansas City	3.50	4.00	3.50	4.00	3.50	3.50	1.00	1.00	10.00	10.00	20.00	25.00
San Francisco <sup>4/</sup>	5.00	N/A	5.00	N/A	N/A	N/A	N/A	N/A	10.00	N/A	35.00	N/A

<sup>1/</sup> Per \$1,000 value shipped.

<sup>2/</sup> Plus out-of-pocket expenses if any.

<sup>3/</sup> Chicago - Postage and Insurance \$1.00 local, \$2.00 interdistrict.

<sup>4/</sup> Minneapolis charges a fee of \$4.00 (including postage and insurance) to collect 12th District coupons in 1986 and \$4.40 in 1987 and a fee of \$11.50 to collect 12th District bonds in 1986 and \$15.00 in 1987.

## ATTACHMENT 7

1987 Price Schedule  
Noncash Collection  
(For Banks Offering A Mixed Deposit Product)

	Local Coupons From In-District DI'S		Local Coupons From Out-Of-District DI'S		Inter-District Coupons Fine Sort		Inter-District Coupons Mixed		Return Items		Bond Redemptions And Sales	
	City	Country	City	Country	1986	1987	1986	1987	1986	1987	1986	1987
Cleveland	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
	2.75	2.75	3.00	3.00	3.25	3.25	3.50	3.50	4.25	4.25	5.25	5.25
	1.75	1.75	2.50	2.50	2.40	2.40	3.15	3.15	2.75	2.75	3.75	3.75
Atlanta	3.60	4.00	3.60	4.00	3.60	4.00	3.60	4.00	3.60	4.00	4.00	4.00
St. Louis 1/	3.00	3.00	3.00	3.00	3.50	3.50	3.50	3.50	3.25	3.25	4.50	4.50
Dallas	3.00	3.00	3.00	3.00	3.50	3.50	3.50	3.50	3.25	3.25	4.50	4.50
	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	15.00	15.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.50	7.50
	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	20.00	20.00

1/ St. Louis intra-district fine sort coupons \$1.75 per envelope in 1986 and \$2.00 in 1987.

BILLING CODE 6210-01-C

ATTACHMENT 8.—FEDERAL RESERVE SYSTEM, BOOK-ENTRY SERVICE AND FEE  
SCHEDULE <sup>1</sup>

Component	Transaction	Fees
On-line transfers originated New York.....	Per transfer .....	\$3.00
9:00 a.m.-12:00 noon.....	Per transfer .....	1.00
12:01 p.m.-2:00 p.m. ....	Per transfer .....	3.00
2:01-Closing.....	Per transfer .....	5.00
Off-line transfers originated.....	Per transfer .....	10.00
Off-line transfers received.....	Per transfer .....	10.00
Account maintenance .....	Per account/per month.....	15.00
Issues in accounts maintained.....	Per issue/per month.....	.50
Funds settlement.....	Per transfer .....	.75

<sup>1</sup> These fees are in place currently.

[FR Doc. 86-25408 Filed 11-24-86; 8:45 am]

BILLING CODE 6210-01-M

**Change in Bank Control; Acquisitions of Banks or Bank Holding Companies**

The notificants listed below have applied under the Change in Bank Control Act (12 U.S.C. 1817 (j)) and § 225.41 of the Board's Regulation Y (12 CFR 225.41) to acquire a bank or bank holding company. That factors that are considered in acting on the notices are set forth in paragraph 7 of the Act (12 U.S.C. 1817 (j)(7)).

The notices are available for immediate inspection at the Federal Reserve Bank indicated. Once the notices have been accepted for processing, they will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank indicated for that notice or to the office of the Board of Governors. Comments must be received not later than December 10, 1986.

**A. Federal Reserve Bank of Chicago** (Franklin D. Dreyer, Vice President) 230 South LaSalle Street, Chicago, Illinois 60690:

1. *Donald Betts*, Adair, Iowa; *Arthur R. Friday*, Atlantic, Iowa; *Roy D. Harris*, Harlan, Iowa; *Charles E. Hornbuckle*, Shenandoah, Iowa; *Lynn F. Johnson*, Essex, Iowa; *Harold O. Larsen*, Atlantic, Iowa; *W.E. Lloyd*, Shenandoah, Iowa; *Edward Naven*, Corning, Iowa; *LeRoy F. Nelson*, Atlantic, Iowa; *Darryl D. Smith*, Atlantic, Iowa; *C. Norlyn Taylor*, Woodbine, Iowa; *Lynn Taylor*, Zillisca, Iowa; and *Kendal C. Warne, Sr.*, Atlantic, Iowa, to acquire 99.97 percent of the voting shares of *Anita Bancorporation*, Newton, Iowa, and thereby indirectly acquire *Anita State Bank*, Newton, Iowa.

2. *Harrington M. Cummings*, Gay G. Cummings, and Cummings & Co., Fremont, Michigan; to retain ownership

of 12.92 percent of the voting shares of *The Old State Bank of Fremont*, Fremont, Michigan.

**B. Federal Reserve Bank of Kansas City** (Thomas M. Hoenig, Vice President) 925 Grand Avenue, Kansas City, Missouri 64198:

1. *Weldon and Leah Jane Brady*, Knob Noster, Missouri; to acquire 43.5 percent of the voting shares of *Sweet Springs Bancshares, Inc.*, Sweet Springs, Missouri, and thereby indirectly acquire *Chemical Bank*, Sweet Springs, Missouri.

**C. Federal Reserve Bank of San Francisco** (Harry W. Green, Vice President) 101 Market Street, San Francisco, California 94105:

1. *Gary C. and Norma E. Byrne*, Sacramento, California; to acquire 23.80 percent of the voting shares of *Alex Brown Financial Group*, Sacramento, California, and thereby indirectly acquire *Bank of Alex Brown*, Sacramento, California, and *Meridian National Bank*, Concord, California.

Board of Governors of the Federal Reserve System, November 19, 1986.

**James McAfee**,  
*Associate Secretary of the Board.*

[FR Doc. 86-26508 Filed 11-24-86; 8:45 am]

BILLING CODE 6210-01-M

**Citicorp et al.; Applications To Engage de Novo in Permissible Nonbanking Activities**

The companies listed in this notice have filed an application under § 225.23(a)(1) of the Board's Regulation Y (12 CFR 225.23(a)(1)) for the Board's approval under section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and § 225.21(a) of Regulation Y (12 CFR 225.21(a)) to commence or to engage *de novo*, either directly or through a subsidiary, in a nonbanking activity that is listed in § 225.25 of Regulation Y as closely related to

banking and permissible for bank holding companies. Unless otherwise noted, such activities will be conducted throughout the United States.

Each application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether consummation of the proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." Any request for a hearing on this question must be accompanied by a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a hearing, and indicating how the party commenting would be aggrieved by approval of the proposal.

Unless otherwise noted, comments regarding the applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than December 12, 1986.

**A. Federal Reserve Bank of New York** (William L. Rutledge, Vice President) 33 Liberty Street, New York, New York 10045:

1. *Citicorp*, New York, New York; to engage *de novo* in collection agency and credit bureau activities pursuant to §§ 225.25(b)(23) and 225.25(b)(24) of the Board's Regulation Y.

**B. Federal Reserve Bank of Richmond** (Lloyd W. Bestian, Jr., Vice President) 701 East Byrd Street, Richmond, Virginia 23261:

1. *Maxwell Corporation*, Charleston, West Virginia; to engage *de novo* in management consulting to banks in all managerial areas, such as board policy, staffing, and product pricing pursuant to § 225.25(b)(11) of the Board's Regulation Y.

Board of Governors of the Federal Reserve System, November 19, 1986.

**James McAfee**,  
*Associate Secretary of the Board.*

[FR Doc. 86-26509 Filed 11-24-86; 8:45 am]

BILLING CODE 6210-01-M

### First Haralson Corp.; Acquisition of Company Engaged in Permissible Nonbanking Activities

The organization listed in this notice has applied under § 225.23 (a)(2) or (f) of the Board's Regulation Y (12 CFR 225.23 (a)(2) or (f)) for the Board's approval under section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and § 225.21(a) of Regulation Y (12 CFR 225.21(a)) to acquire or control voting securities or assets of a company engaged in a nonbanking activity that is listed in § 225.25 of Regulation Y as closely related to banking and permissible for bank holding companies. Unless otherwise noted, such activities will be conducted throughout the United States.

The application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether consummation of the proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." Any request for a hearing on this question must be accompanied by a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a hearing, and indicating how the party commenting would be aggrieved by approval of the proposal.

Comments regarding the application must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than December 15, 1986.

**A. Federal Reserve Bank of Atlanta** (Robert E. Heck, Vice President) 104 Marietta Street NW., Atlanta, Georgia 30303:

1. *First Haralson Corporation*, Buchanan, Georgia; to acquire Thompson-Greene Insurance Agency, Tallapoosa, Georgia, and thereby engage in insurance activities in a town of less than 5,000 persons pursuant to § 225.25(b)(8) of the Board's Regulation Y. These activities will be conducted in Buchanan and Tallapoosa, Georgia.

Board of Governors of the Federal Reserve System, November 19, 1986.

James McAfee,

*Associate Secretary of the Board.*

[FR Doc. 86-26510 Filed 11-24-86; 8:45 am]

BILLING CODE 6210-01-M

### First Mutual Holding Co. et al.; Formations of, Acquisitions by, and Mergers of Bank Holding Companies

The companies listed in this notice have applied for the Board's approval under section 3 of the Bank Holding Company Act (12 U.S.C. 1842) and § 225.14 of the Board's Regulation Y (12 CFR 225.14) to become a bank holding company or to acquire a bank or bank holding company. The factors that are considered in acting on the applications are set forth in section 3(c) of the Act (12 U.S.C. 1842(c)).

Each application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank or to the offices of the Board of Governors. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Unless otherwise noted, comments regarding each of these applications must be received not later than December 16, 1986.

**A. Federal Reserve Bank of Boston** (Robert M. Brady, Vice President) 600 Atlantic Avenue, Boston, Massachusetts 02106:

1. *First Mutual Holding Company*, Dover, New Hampshire; to become a bank holding company by acquiring 100 percent of the voting shares of Southeast Bank for Savings, Dover, New Hampshire. Comments on this application must be received by December 10, 1986.

**B. Federal Reserve Bank of Philadelphia** (Thomas K. Desch, Vice President) 100 North 6th Street, Philadelphia, Pennsylvania 19105:

1. *Codorus Valley Bancorp, Inc.*, Glen Rock, Pennsylvania; to become a bank holding company by acquiring 100 percent of the voting shares of Peoples Bank of Glen Rock, Glen Rock, Pennsylvania.

**C. Federal Reserve Bank of Minneapolis** (James M. Lyon, Vice

President) 250 Marquette Avenue, Minneapolis, Minnesota 55480:

1. *Bank Shares Incorporated*, Minneapolis, Minnesota; to acquire 88.27 percent of the voting shares of First State Bank of Apple Valley, Apple Valley, Minnesota. Comments on this application must be received by December 12, 1986.

2. *Con-West, Inc.*, Billings, Montana; to become a bank holding company by acquiring 80 percent of the voting shares of First Security Bank of Glendive, Glendive, Montana.

**D. Federal Reserve Bank of Kansas City** (Thomas M. Hoenig, Vice President) 925 Grand Avenue, Kansas City, Missouri 64198:

1. *Dinsdale Bros., Inc.*, Central City, Nebraska; to merge with The Mitch Corporation, Central City, Nebraska, and thereby indirectly acquire First National Bank in Mitchell, Mitchell, Nebraska. Comments on this application must be received by December 15, 1986.

Board of Governors of the Federal Reserve System, November 19, 1986.

James McAfee,

*Associate Secretary of the Board.*

[FR Doc. 86-26511 Filed 11-24-86; 8:45 am]

BILLING CODE 6210-01-M

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

[Docket No. 84D-0141]

### Extra-Label Use of New Animal Drugs in Food-Producing Animals; Availability of Revised Compliance Policy Guide

**AGENCY:** Food and Drug Administration.  
**ACTION:** Notice.

**SUMMARY:** The Food and Drug Administration (FDA) is announcing the availability of revised Compliance Policy Guide 7125.06 prepared by FDA's Center for Veterinary Medicine and entitled "Extra-Label Use of New Animal Drugs in Food-Producing Animals." On August 1, 1986, the guide was revised to provide that the extra-label use of new animal drugs in medicated feed is not permitted under this discretionary policy. On November 1, 1986, the guide was revised to add to the listing for high priority regulatory attention the use of any nitroimidazoles in species, e.g., swine, in which use of the compounds is unapproved.

**ADDRESS:** The revised guide is available for public examination at, and comments and requests for single copies

may be sent to, the Dockets Management Branch (HFA-305), Food and Drug Administration, Rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857.

**FOR FURTHER INFORMATION CONTACT:**

Edward J. Ballitch, Center for Veterinary Medicine (HFV-230), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-443-3336.

**SUPPLEMENTARY INFORMATION:** Concern over numerous questions regarding extra-label use of drugs in animal feeds has prompted FDA's Center for Veterinary Medicine (CVM) to announce a revision in its extra-label use policy to make it clear that the extra-label use of new animal drugs in animal feed is not permitted. On August 1, 1986, CVM revised its Compliance Policy Guide 7125.06 to clarify that a new animal drug may be used in medicated feed only as specifically permitted by regulation in 21 CFR Part 558. On November 1, 1986, CVM revised the guide by adding to the listing for high priority regulatory attention the use of dimetridazole, ipronidazole, or any other nitroimidazole in species, e.g., swine, in which use of the compound is unapproved. The November 1 revision is based on serious questions about the safety of residues which may occur from extra-label use of these drugs.

For the purpose of CVM's extra-label use policy, "extra-label use" refers to the actual or intended use of an approved new animal drug in a food-producing animal in a manner that is not in accordance with the drug's labeling.

The revised policy guide states that the highest priorities for regulatory action will be given to cases of extra-label use of new animal drugs in treating food-producing animals, when:

- (1) Illegal residues occur;
- (2) Chloramphenicol or diethylstilbestrol (DES) is used in food animals;
- (3) Dimetridazole, ipronidazole, or any other nitroimidazole is used in a species, e.g., swine, in which use of the compound is unapproved;
- (4) Manufacturers and distributors promote extra-label use of drugs;
- (5) Drugs are mixed into medicated feeds intended for extra-label use; or
- (6) Laymen use products in an extra-label manner at their own initiative.

Compliance Policy Guide 7125.06 is available for public examination at, and requests for single copies may be sent to, the Dockets Management Branch (address above). In accordance with 21 CFR 10.85 (d)(3) and (i), any person may submit written comments on the revised guide. Written comments should be sent

to the Dockets Management Branch. Two copies of any comments are to be submitted, except that individuals may submit one copy. Comments are to be identified with Docket No. 84D-0141. Although any comments will be considered if the guide is revised again in the future, the agency will not defer regulatory action pending any such revision.

Dated: November 18, 1986.

John M. Taylor,

Associate Commissioner for Regulatory Affairs.

[FR Doc. 86-26477 Filed 11-24-86; 8:45 am]

BILLING CODE 4160-01-M

## National Institutes of Health

### Cancer Center Support Review Committee; Meeting

Pursuant to Pub. L. 92-463, notice is hereby given of the meeting of the Cancer Center Support Review Committee, National Cancer Institute, December 4-5, 1986, Holiday Inn Crowne Plaza, Rockville, Maryland 20852. This meeting will be open to the public on December 4 from 8:30 a.m. to 9:30 a.m. to review administrative details. Attendance by the public will be limited to space available.

In accordance with provisions set forth in Sections 552b(c)(4) and 552b(c)(6), Title 5, U.S. Code and section 10(d) of Pub. L. 92-463, the meeting will be closed to the public on December 4, from 9:30 a.m. to recess, and on December 5, from 8:30 a.m. to adjournment, for the review, discussion and evaluation of individual grant applications. These applications and the discussions could reveal confidential trade secrets or commercial property such as patentable material and personal information concerning individuals associated with the applications, disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Mrs. Winifred Lumsden, the Committee Management Officer, National Cancer Institute, Building 31, Room 10A06, National Institutes of Health, Bethesda, Maryland 20892 (301/496-5708) will provide summaries of the meeting and rosters of committee members, upon request.

Dr. John W. Abrell, Executive Secretary, Cancer Center Support Review Committee, National Cancer Institute, Westwood Building, Room 834, National Institutes of Health, Bethesda, Maryland 20892 (301/496-9787) will

furnish substantive program information.

This notice is being published less than 15 days prior to the meeting because the conflicting schedules of committee members prevented the meeting from being held at a later date.

Dated: November 17, 1986.

Betty J. Beveridge

Committee Management Officer, NIH.

[FR Doc. 86-26616 Filed 11-24-86; 8:45 am]

BILLING CODE 4140-01-M

## Public Health Service

### National Committee on Vital and Health Statistics, Subcommittee on Disease Classification and Automated Coding of Medical Diagnoses; Correction to Notice of Meeting

Pursuant to the Federal Advisory Act (Pub. L. 92-463), notice is hereby given that the Subcommittee on Disease Classification and Automated Coding of Medical Diagnoses of the National Committee on Vital and Health Statistics (NCVHS) established pursuant to 42 USC 242k, section 306(k)(2) of the Public Health Service Act, as amended, will convene on Tuesday, December 2, 1986 at 9:00 a.m. in Building 31, C-Wing, 6th Floor, Conference Room 10, National Institutes of Health, 9000 Rockville Pike, Bethesda, Maryland 20892. This notice corrects the day and location of this meeting which was published on page 41669 of the November 18, 1986 issue of the *Federal Register*.

The Subcommittee will receive presentations from the National Center for Health Statistics on the current status of the Tenth Revision to the International Classification of Diseases (ICD-10). The meeting will also provide a forum for interested parties to express their views.

Further information regarding this meeting of the Subcommittee may be obtained by contacting Gail F. Fisher, Ph.D., Executive Secretary, National Committee on Vital and Health Statistics, Room 2-28, Center Building, 3700 East-West Highway, Hyattsville, Maryland 20782, telephone (301) 436-7050.

Dated: November 20, 1986.

Manning Feinleib, M.D., Dr.P.H.,

Director, National Center for Health Statistics.

[FR Doc. 86-26654 Filed 11-24-86; 8:45 am]

BILLING CODE 4160-17-M

**DEPARTMENT OF THE INTERIOR****Bureau of Land Management**

[7-00151; ORE 09944; (OR-943-07-4220-11: GP7-017)]

**Proposed Continuation of Withdrawal; Oregon**

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Notice.

**SUMMARY:** The Forest Service, U.S. Department of Agriculture proposes that the land withdrawal for the Dale Ranger Station Administration Site continue for an additional 20 years. The land would remain closed to surface entry and mining but has been and would remain open to mineral leasing.

**FOR FURTHER INFORMATION CONTACT:** Champ Vaughan, BLM Oregon State Office, P.O. Box 2965, Portland, Oregon 97208 (Telephone 503-231-8905).

**SUPPLEMENTARY INFORMATION:** The Forest Service, U.S. Department of Agriculture proposes that the existing land withdrawal made by Public Land Order No. 2611 of February 12, 1962, be continued for a period of 20 years pursuant to section 204 of the Federal Land Policy and Management Act of 1976, 90 Stat. 2751, 43 U.S.C. 1714.

The land involved is located outside the Umatilla National Forest on the North Fork John Day River approximately 50 miles south of Pendleton and contains 10 acres within Section 36, T. 6 S., R. 31 E., W.M., Umatilla County, Oregon.

The purpose of the withdrawal is to protect the Dale Ranger Station Administrative Site. The withdrawal segregates the land from operation of the public land laws generally, including the mining laws, but not the mineral leasing laws. No change is proposed in the purpose or segregative effect of the withdrawal.

For a period of 90 days from the date of publication of this notice, all persons who wish to submit comments, suggestions, or objections in connection with the proposed withdrawal continuation may present their views in writing to the undersigned officer at the address specified above.

The authorized officer of the Bureau of Land Management will undertake such investigations as are necessary to determine the existing and potential demand for the land and its resources. A report will also be prepared for consideration by the Secretary of the Interior, the President and Congress, who will determine whether or not the withdrawal will be continued and if so, for how long. The final determination on

the continuation of the withdrawal will be published in the **Federal Register**. The existing withdrawal will continue until such final determination is made.

Dated: November 14, 1986.

**B. LaVelle Black,**  
Chief, Branch of Lands and Minerals Operations.

[FR Doc. 86-26490 Filed 11-24-86; 8:45 am]

**BILLING CODE 4310-33-M**

**Minerals Management Service****Oil and Gas and Sulphur Operations in the Outer Continental Shelf**

**AGENCY:** Minerals Management Service, Interior.

**ACTION:** Notice of availability.

**SUMMARY:** Notice is hereby given that certain accident investigation reports of blowout and/or fires that occurred on oil and gas facilities located on the Outer Continental Shelf are available to the public upon request.

**ADDRESSES:** Copies of the reports may be obtained from Minerals Management Service; Offshore Rules and Operations Division, MS 646; 12203 Sunrise Valley Drive; Reston, Virginia 22091.

**FOR FURTHER INFORMATION CONTACT:** Mr. Price McDonald, Chief, Offshore Rules and Operations Division; Minerals Management Service; 12203 Sunrise Valley Drive, Mail Stop 646; Reston, Virginia 22091; Telephone (703) 648-7813, (FTS) 959-7813.

**SUPPLEMENTARY INFORMATION:** The available accident investigation reports are identified as follows:

Open file No.	Event and date	Area and block	Region
84-0040	Blowout, 7/20/83.	Matagorda Island, Block 657.	Gulf of Mexico
84-0050	Blowout, 10/20/83.	Eugene Island, Block 10.	Do.
85-0054	Explosion/Fire, 5/13/84.	West Cameron, Block 405.	Do.
85-0099	Fire, 8/17/84.	East Cameron, Block 322.	Do.
86-0006	Fire, 1/6/84.	Ship Shoal, Block 269.	Do.
86-0100	Blowout/Fire, 12/3/85.	West Cameron, Block 648.	Do.
86-0101	Blowout/Fire, 9/14/84.	Green Canyon, Block 69.	Do.

Dated: November 17, 1986.

**John B. Rigg,**  
Associate Director for Offshore Minerals Management.

[FR Doc. 86-26492 Filed 11-24-86; 8:45 am]

**BILLING CODE 4310-MR-M**

**DEPARTMENT OF THE INTERIOR****Oil and Gas and Sulphur Operations in Outer Continental Shelf; ODECO Oil and Gas Co.**

**AGENCY:** Minerals Management Service, Department of the Interior.

**ACTION:** Notice of the Receipt of a Proposed Development Operations Coordination Document.

**SUMMARY:** This Notice announces that ODECO Oil & Gas Company, Unit Operator of the Ship Shoal Block 113 Federal Unit Agreement No. 14-08-001-2931, submitted on November 12, 1986, a proposed Development Operations Coordination Document describing the activities it proposes to conduct on the Ship Shoal Block 113 Federal unit.

The purpose of this Notice is to inform the public, pursuant to section 25 of the OCS Lands Act Amendments of 1978, that the Minerals Management Service is considering approval of the plan and that it is available for public review at the offices of the Regional Director, Gulf of Mexico OCS Region, Minerals Management Service, 1201 Wholesalers Parkway, New Orleans, Louisiana 70123.

**FOR FURTHER INFORMATION CONTACT:** Minerals Management Service, Records Management Section, Room 114, open weekdays 9:00 a.m. to 3:30 p.m., 1201 Wholesalers Parkway, New Orleans, Louisiana 70123, phone (504) 736-2519.

**SUPPLEMENTARY INFORMATION:** Revised rules governing practices and procedures under which the Minerals Management Service makes information contained in the proposed development operations coordination document available to affected States, executives of affected local governments, and other interested parties became effective on December 13, 1979 (44 FR 53685). Those practices and procedures are set out in a revised § 250.34 of Title 30 of the Code of Federal Regulations.

Dated: November 17, 1986.

**J. Rogers Pearcy,**  
Regional Director, Gulf of Mexico OCS Region.

[FR Doc. 86-26491 Filed 11-24-86; 8:45 am]

**BILLING CODE 4310-MR-M**

**National Park Service****Intention To Extend Concession Contract**

Pursuant to the provisions of Section 5 of the Act of October 9, 1965 (79 Stat. 969; 16 U.S.C. 20), public notice is hereby given that sixty (60) days after the date of publication of this notice, the

Department of the Interior, through the Director of the National Park Service, proposes to extend concession contracts with Bullfrog Marina, Incorporated and Hite Resort & Marina, Incorporated, authorizing them to continue to provide accommodations, facilities and services for the public at Glen Canyon National Recreation Area, Arizona for a period of one (1) year from January 1, 1987, through December 31, 1987.

These contract extensions have been determined to be categorically excluded from the procedural provisions of the National Environmental Policy Act and no environmental document will be prepared.

The foregoing concessioners have performed their obligations to the satisfaction of the Secretary under an existing contract which expired by limitation of time on December 31, 1986, and therefore, pursuant to the Act of October 9, 1965, as cited above, are entitled to be given preference in the renewal of the contracts and in the negotiation of new contracts as defined in 36 CFR 51.5.

The Secretary will consider and evaluate all proposals received as a result of this notice. Any proposal, including that of the existing concessioners, must be postmarked or hand delivered on or before the sixtieth (60th) day following publication of this notice to be considered and evaluated.

Interested parties should contact the Regional Director, Rocky Mountain Region, Denver, Colorado, for information as to the requirements of the proposed contracts.

Dated: October 1, 1986.

Homer L. Rouse,  
Acting Regional Director, Rocky Mountain Region.

Approved September 29, 1986.

Curtis H. Menefee,  
For the Regional Solicitor, Rocky Mountain Region.

[FR Doc. 86-26562 Filed 11-24-86; 8:45 am]  
BILLING CODE 4310-70-M

### National Register of Historic Places; NHL Boundaries

The National Park Service has been working to establish boundaries for all National Historic Landmarks for which no specific boundary was identified at the time of designation and therefore are without a clear delineation of the amount of property involved. The results of such designation make it important

that we define specific boundaries for each landmark.

In accordance with the National Historic Landmark program regulations, 36 CFR 65, the National Park Service notifies owners, public officials and other interested parties and provides them with an opportunity to make comments on the proposed boundaries.

The 60-day comment period on the attached National Historic Landmark has ended, and the boundaries have been established. Copies of the documentation of the landmark and its boundaries, including maps, may be obtained from Jerry L. Rogers, Associate Director, Cultural Resources, and Keeper of the National Register of Historic Places, National Park Service, P.O. Box 37127, Washington, DC 20012-7127, Attention: Chief of Registration (Phone: 202-343-9536).

Carol D. Shull,  
Chief of Registration, National Register of Historic Places, Interagency Resources Division.

Mesilla Plaza  
Mesilla, New Mexico (Dona Ana County)

[FR Doc. 86-26560 Filed 11-24-86; 8:45 am]

BILLING CODE 4319-70-M

### National Register of Historic Places; Notification of Pending Nominations

Nominations for the following properties being considered for listing in the National Register were received by the National Park Service before November 15, 1986. Pursuant to § 60.13 of 36 CFR Part 60 written comments concerning the significance of these properties under the National Register criteria for evaluation may be forwarded to the National Register, National Park Service, U.S. Department of the Interior, Washington, DC 20243. Written comments should be submitted by December 10, 1986.

Carol D. Shull,  
Chief of Registration, National Register.

### CONNECTICUT

#### Hartford County

Newington, *Newington Junction North Historic District (Newington Junction MRA)*, 55-108 Willard Ave.  
Newington, *Newington Junction Railroad Depot (Newington Junction MRA)*, 160 Willard Ave. and 200 Francis Ave.

Newington, *Newington Junction South Historic District (Newington Junction MRA)*, 268-319 Willard Ave.  
Newington, *Newington Junction West Historic District (Newington Junction MRA)*, 175 & 181-183 Willard Ave., and 269-303 W. Hill Rd.  
Newington, *Willard Homestead (Newington Junction MRA)*, 372 Willard Ave.

### DELAWARE

#### New Castle County

Odessa vicinity, *Old Ford Dairy (Boundary Increase) (Rebuilding St. Georges Hundred 1850-1880 TR)* US 13

### KANSAS

#### Reno County

Hutchinson, *Whiteside, Houston, House*, 504 E. Sherman

### KENTUCKY

#### Kenton County

Covington, *Austinburg Historic District (Eastside MRA)*, Roughly bounded by Chesapeake & Ohio RR, Licking River floodwall, rear lot lines of N side of Wallace Ave., and Madison Ave.  
Covington, *Emery-Price Historic District (Eastside MRA)*, Roughly bounded by Eighth, Greenup, and Eleventh Sts., and alley behind W side of Scott Blvd.  
Covington, *Helentown Historic District (Eastside MRA)*, Roughly bounded by Eleventh and Wheeler Sts., Chesapeake & Ohio RR, and Madison Blvd.  
Covington, *West Fifteenth Street Historic District (Eastside MRA)*, 1445-1451 and 1501-1513 Madison Ave., 1421-1423 Neave St., and 10-32 W. Fifteenth St.

### MAINE

#### Piscataquis County

Sebec-Piscataquis River Confluence  
*Prehistoric Archaeological District*

### MASSACHUSETTS

#### Bristol County

Taunton, *U.S. Post Office-Taunton Main*, 37 Taunton Green

### NEW JERSEY

#### Mercer County

Trenton, *Trenton and Mercer County War Memorial-Soldiers' and Sailors' Memorial Building*, W. Lafayette St.

### NORTH CAROLINA

#### Bladen County

Clarkton, *Clarkton Depot*, Elm and Hester Sts.

### OKLAHOMA

#### Cleveland County

Norman, *Jacobson, Oscar B., House*, 609 S. Chataqua Ave.

**Pontotoc County**

Ada, *East Central State Normal School*, East  
Central University Campus

**Pottawatomie County**

Rose—Fast Site (34PT28)

**SOUTH CAROLINA****Darlington County**

Hartsville, *Arcade Hotel*, 204 N. Fifth St.

**Laurens County**

Laurens, *Wilson-Clary House (Laurens  
MRA)*, 120 Irby Ave.

**Richland County**

Nipper Creek (38RD18)

**York County**

Rock Hill, *Winthrop College Historic District*,  
Along Oakland Ave. between Cherry Rd.  
and Stewart Ave. on the Winthrop College  
Campus

**TENNESSEE****Smith County**

Rome, *Rome Ferry*, US 70 at Cumberland  
River

**VIRGINIA****Lynchburg (Independent City)**

Kentucky Hotel, 900 Fifth St.

**Powhatan County**

Ballsville, *Blenheim*, 6177 Blenheim Rd.

**WISCONSIN****Dane County**

Madison, *Wiedenbeck—Bobelin Warehouse*,  
619 W. Mifflin St.

[FR Doc. 86-26561 Filed 11-24-86; 8:45 am]

BILLING CODE 4310-70-M

**DEPARTMENT OF LABOR****Employment and Training  
Administration**

[TA-W-18,298]

**Domenico, Inc., Lynn, MA; Termination  
of Investigation**

Pursuant to section 221 of the Trade  
Act of 1974, an investigation was  
initiated on April 14, 1986 in response to  
a worker petition received on September  
19, 1986 which was filed by the  
International Ladies' Garment Workers'  
Union on behalf of workers at  
Domenico, Incorporated, Lynn,  
Massachusetts.

The petitioning group of workers are  
subject to an ongoing investigation for  
which a determination has not yet been  
issued (TA-W-17,943). Consequently,  
further investigation in this case would  
serve no purpose; and the investigation  
has been terminated.

Signed at Washington, DC, this 7th day of  
November 1986.

Marvin M. Fooks,

Director, Office of Trade Adjustment  
Assistance.

[FR Doc. 86-26544 Filed 11-24-86; 8:45 am]

BILLING CODE 4510-30-M

**Investigations Regarding  
Certifications of Eligibility To Apply for  
Worker Adjustment Assistance;  
Halliburton Services et al.**

Petitions have been filed with the  
Secretary of Labor under section 221(a)  
of the Trade Act of 1974 ("the Act") and  
are identified in the Appendix to this  
notice. Upon receipt of these petitions,

the Director of the Office of Trade  
Adjustment Assistance, Employment  
and Training Administration, has  
instituted investigations pursuant to  
section 221(a) of the Act.

The purpose of each of the  
investigations is to determine whether  
the workers are eligible to apply for  
adjustment assistance under Title II,  
Chapter 2, of the Act. The investigations  
will further relate, as appropriate, to the  
determination of the date on which total  
or partial separations began or  
threatened to begin and the subdivision  
of the firm involved.

The petitioners or any other person  
showing a substantial interest in the  
subject matter of the investigations may  
request a public hearing, provided such  
request is filed in writing with the  
Director, Office of Trade Adjustment  
Assistance, at the address shown below,  
not later than December 5, 1986.

Interested persons are invited to  
submit written comments regarding the  
subject matter of the investigations to  
the Director, Office of Trade Adjustment  
Assistance, at the address shown below,  
not later than December 5, 1986.

The petitions filed in this case are  
available for inspection at the Office of  
the Director, Office of Trade Adjustment  
Assistance, Employment and Training  
Administration, U.S. Department of  
Labor, 601 D Street, NW., Washington,  
DC 20213.

Signed at Washington, DC this 10th day of  
November 1986.

Marvin M. Fooks,

Director, Office of Trade Adjustment  
Assistance.

**Appendix**

Petitioner (Union/Workers/Firm)	Location	Date Received	Date of Petition	Petition Number	Articles Produced
Halliburton Services (Workers)	Carrizo Springs, TX	10/21/86	10/6/86	TA-W-18,547	Oil well cementing services.
AT&T Information Systems (IBEW)	Underwood, IA	10/24/86	10/20/86	TA-W-18,548	Telecommunication equipment.
McDonald Tank & Equipment Co. MacTank Co. (Workers)	Great Bend, KA	10/23/86	9/25/86	TA-W-18,549	Oil and gas storage and handling.
Eaton Corp (Boilermakers)	Marion, OH	10/23/86	10/13/86	TA-W-18,550	Steel forgings.
Molycorp, Inc (USWA)	Washington, PA	10/22/86	10/20/86	TA-W-18,551	Molybdenum trioxide, molybdenum oxide.
Bailey Trucking, Inc. (Company)	Pascentville, PA	10/22/86	10/20/86	TA-W-18,552	Transport crude oil.
Great Northern Paper Co., Woodland Div. (Workers)	Millinocket, ME	10/24/86	10/3/86	TA-W-18,553	Planting trees.
Great Northern Paper East Millinocket Mill (Workers)	Millinocket, ME	10/24/86	10/13/86	TA-W-18,554	Makes newspaper print.
Ridge Tool Co. (Workers)	Elyria, OH	10/30/86	10/22/86	TA-W-18,555	Tools.
Superior Drawn Steel (USWU)	Monaco, PA	10/28/86	10/15/86	TA-W-18,556	Steel bars.
Diamond Match Co. (Stanley Dandro Union)	Springfield, MA	10/30/86	10/24/86	TA-W-18,557	Book matches.
Cincinnati Flame Hardening (Company)	Cincinnati, OH	10/28/86	10/23/86	TA-W-18,558	Flame hardens steel parts.
Marion-Heil Bronzelo (USW)	Marion, OH	10/30/86	10/5/86	TA-W-18,559	Finished bronzed bushings.
Murray-Ohio Mfg. Co. (Workers)	Lawrenceburg, OH	10/30/86	10/27/86	TA-W-18,560	Bicycles & power mowers.
Motorola, Inc. (Company)	Joplin, MO	10/29/86	10/27/86	TA-W-18,561	CRT displays & comp. terminals.
Dia-Log Co. (Workers)	Houston, TX	10/30/86	10/24/86	TA-W-18,562	Oil service-log, pastorate.
Mid-Continent Resources (Workers)	Carbondale, Co	10/28/86	10/20/86	TA-W-18,563	Mine metallurgical coal.
Stetson Hat Co. (SCWU)	St. Joseph, MO	10/29/86	10/20/86	TA-W-18,564	Hats & caps.
Damson Oil Corp. (Workers)	Houston, TX	10/27/86	10/21/86	TA-W-18,565	Oil drilling.
Homestake Mining (Workers)	Reno, NV	10/21/86	9/30/86	TA-W-18,566	Metal exploration.
Homestake Mining (Workers)	Golden, CO	10/21/86	9/30/86	TA-W-18,567	Metal exploration.
Ideal Basic Industries Superior Plant (Workers)	Suprior, NE	10/27/86	10/17/86	TA-W-18,568	Cement.
Murray Meisner, Inc. (Workers)	NY, NY	10/22/86	10/18/86	TA-W-18,569	Ladies' dresses.
Precision Lease Service Inc. (Workers)	Carrizo Spring, TX	10/21/86	10/6/86	TA-W-18,570	Oil field construction services.
Bell Rubber (Workers)	Athens, TX	10/27/86	10/21/86	TA-W-18,571	Metal products used in oil drilling.
Flavor Tree Foods, Inc. (Company)	Englewood Cliffs, NJ	10/28/86	10/20/86	TA-W-18,572	Fruit rolls candy.
Alcoa Conductor Products Co. (Workers)	Vancouver, WA	10/28/86	10/26/86	TA-W-18,573	Aluminum rod and cable.
LTV-Nemacolin Buckeye Mine (UMWA)	Nemacolin, PA	10/28/86	10/23/86	TA-W-18,574	Metallurgical coal.
LTV-Campbell Works (USWA)	Youngstown, PA	10/28/86	10/24/86	TA-W-18,575	Seamless pipe.

## Appendix—Continued

Petitioner (Union/Workers/Firm)	Location	Date Received	Date of Petition	Petition Number	Articles Produced
Curtis Machine Co. (Workers)	Washington, PA	10/28/86	10/24/86	TA-W-18,576	Machined parts and equipment.
General Electric (IUE)	Schenectady, NY	10/28/86	9/9/86	TA-W-18,577	Gas and steam turbines.
Rhyan-Beth Coal Co. (UMWA)	Man, WV	10/28/86	7/7/86	TA-W-18,578	Metallurgical coal.
W-K-M, Division of Joy Manufacturing (Workers)	Houston, TX	10/28/86	10/20/86	TA-W-18,579	Valves.
Springfield Foundry Co. (USWA)	Indiana Orchard, MA	10/28/86	10/24/86	TA-W-18,580	Speciality steel castings.
Zenith Electronics Corp (UEWAI)	Chicago, IL	10/28/86	10/17/86	TA-W-18,581	Electronic video displays.
Beth Energy (UMWA)	Forty Four, PA	11/4/86	10/28/86	TA-W-18,582	Coal.
Trans American Natural Gas Corporation (Workers)	Laredo, TX	11/4/86	10/28/86	TA-W-18,583	Natural gas.
Honeywell, Inc. (Workers)	Arlington Heights, IL	11/4/86	10/27/86	TA-W-18,584	Computerized controls.
Geophysical Service, Inc. (Workers)	Dallas, TX	11/4/86	11/4/86	TA-W-18,585	Seismic exploration.
Shoe Corporation of Am. Columbus Distribution Center (Workers)	Columbus, OH	11/4/86	10/28/86	TA-W-18,586	Retail shoes.
Ithaca Gun Company (IAMAW)	Ithaca, NY	11/4/86	10/29/86	TA-W-18,587	Sporting guns.
Ithaca Gun Company Cameron Plant (IAMAW)	Cameron, MO	11/4/86	10/29/86	TA-W-18,588	Sporting guns.
Harbison Walker (USWA)	Granville, MO	11/3/86	10/27/86	TA-W-18,589	Clay bottom pour brick.
Sledge Drilling Co. (Company)	Flora, IL	11/3/86	10/23/86	TA-W-18,590	Oil & gas drilling.
ARK-LA-TEX Oil & Gas Inc. (Company)	Wichita Falls, TX	11/3/86	10/16/86	TA-W-18,591	Oil & gas drilling.
FWA Drilling Co., Inc. (Workers)	Wichita Falls, TX	11/3/86	10/22/86	TA-W-18,592	Oil & gas drilling.
Saxon Oil Co. (Workers)	Dallas, TX	1/3/86	10/20/86	TA-W-18,593	Oil & gas production.
E.D. Capps Construction (Company)	Carthage, TX	11/3/86	10/23/86	TA-W-18,594	Construction of oil gas sites.
Waterland Enterprises Inc. (Workers)	Odessa, TX	10/29/86	10/22/86	TA-W-18,595	Amusement park.
Singer Furniture (Workers)	Bryson City, NC	10/30/86	10/24/86	TA-W-18,596	Furniture.
Brown Disc Mfg., Inc. (Workers)	CO Springs, CO	11/3/86	10/24/86	TA-W-18,597	Floppy diskettes.
Sheehah Exploration (Workers)	Casper, WY	11/3/86	10/28/86	TA-W-18,598	Oil & gas exploration services.
L&L Shothole Services (Workers)	Sidney, MT	11/3/86	10/28/86	TA-W-18,599	Test hole cleanup services.
AT&T Sales Office (Workers)	Knoxville, TN	11/3/86	10/15/86	TA-W-18,600	Billing & sales services.
Center	Alcoa, TN	11/3/86	10/15/86	TA-W-18,601	Phone sales.

[FR Doc. 86-26542 Filed 11-24-86; 8:45 am]  
BILLING CODE 4510-30-M

## [TA-W-18,390]

**Johnn Drilling Co., Odessa, TX;  
Termination of Investigation**

Pursuant to section 221 of the Trade Act of 1974, an investigation was initiated on October 20, 1986 in response to a worker petition which was filed on behalf of workers at Johnn Drilling Company, Odessa, Texas.

A negative determination applicable to the petitioning group of workers was issued on September 30, 1986 (TA-W-18,163). No new information is evident which would result in a reversal of the Department's previous determination. Consequently, further investigation in this case would serve no purpose; and the investigation has been terminated.

Signed at Washington, DC this 7th day of November 1986.

**Marvin M. Fooks,**

*Director, Office of Trade Adjustment Assistance.*

[FR Doc. 86-26547 Filed 11-24-86; 8:45 am]  
BILLING CODE 4510-30-M

## [TA-W-18,421]

**Loffland Brothers Drilling, New Braunfels, TX; Termination of Investigation**

Pursuant to section 221 of the Trade Act of 1974, an investigation was initiated on October 20, 1986 in response to a worker petition which was filed on

behalf of workers at Loffland Brothers Drilling, New Braunfels, Texas.

A negative determination applicable to the petitioning group of workers was issued on September 30, 1986 (TA-W-18,110). No new information is evident which would result in a reversal of the Department's previous determination. Consequently, further investigation in this case would serve no purpose; and the investigation has been terminated.

Signed at Washington, DC this 7th day of November 1986.

**Marvin M. Fooks,**

*Director, Office of Trade Adjustment Assistance.*

[FR Doc. 86-26546 Filed 11-24-86; 8:45 am]  
BILLING CODE 4510-30-M

## [TA-W-17,061]

**Revised Determination on Reconsideration; Tractech, Inc., Mercury Products Division, Canton, OH**

On July 30, 1986, the Department issued an Affirmative Determination Regarding Application for Reconsideration for workers and former workers of Tractech, Incorporated, Mercury Products Division, Canton, Ohio. This determination was published in the **Federal Register** on August 12, 1986 (51 FR 28905).

The International Association of Machinists and Aerospace Workers, Local 984, application for reconsideration claims that castings which the Canton plant once machined are now being machined and imported from Canada.

On reconsideration, the company furnished additional information on the transfer of clutch matching and drilling and brake turning operations to Canada. The findings confirmed that the clutch machining and drilling and brake turning operations once performed at Canton are now being performed in Canada. The machined clutches and turned brakes were first imported in October, 1985.

Layoffs associated with the transfer of the clutch machining and drilling and brake turning operations occurred at Canton in October, 1985 and have continued through 1986.

**Conclusion**

After careful review of the additional facts obtained on reconsideration, it is concluded that increased imports of machined castings and turned brakes produced at Tractech, Inc., Mercury Products Division, Canton, Ohio, contributed importantly to the decline in production and to the total or partial separation of workers and former workers at Tractech's Mercury Products Division. In accordance with the provisions of the Trade Act of 1974, I make the following revised determination:

All workers of Tractech, Inc., Mercury Products Division, Canton, Ohio, (Turret Lathe Department and Machine Shop) engaged in employment related to the production of the machined clutch castings and to brake turning operations who became totally or partially separated from employment on or after October 1, 1985, are eligible to apply for adjustment assistance under section 223 of the Trade Act of 1974.

Signed at Washington, DC, this 27th day of October 1986.

**Robert O. Deslongchamps,**

*Director, Office of Legislation and Actuarial Services, UIS.*

[FR Doc. 86-26549 Filed 11-24-86; 8:45 am]

BILLING CODE 4510-30-M

### Investigations Regarding Certifications of Eligibility To Apply for Worker Adjustment Assistance; Vogue Rattan et al.

Petitions have been filed with the Secretary of Labor under section 221(a) of the Trade Act of 1974 ("the Act") and are identified in the Appendix to this notice. Upon receipt of these petitions, the Director of the Office of Trade

Adjustment Assistance, Employment and Training Administration, has instituted investigations pursuant to section 221(a) of the Act.

The purpose of each of the investigations is to determine whether the workers are eligible to apply for adjustment assistance under Title II, Chapter 2, of the Act. The investigations will further relate, as appropriate, to the determination of the date on which total or partial separations began or threatened to begin and the subdivision of the firm involved.

The petitioners or any other persons showing a substantial interest in the subject matter of the investigations may request a public hearing, provided such request is filed in writing with the Director, Office of Trade Adjustment

Assistance, at the address shown below, not later than December 5, 1986.

Interested persons are invited to submit written comments regarding the subject matter of the investigations to the Director, Office of Trade Adjustment Assistance, at the address shown below, not later than December 5, 1986.

The petitions filed in this case are available for inspection at the Office of the Director, Office of Trade Adjustment Assistance, Employment and Training Administration, U.S. Department of Labor, 601 D Street, NW., Washington, DC 20213.

Signed at Washington, DC this 17th day of November 1986.

**Marvin M. Fooks,**

*Director, Office of Trade Adjustment Assistance.*

### APPENDIX

Petitioner (Union/Workers/Firm)	Location	Date Received	Date of Petition	Petition Number	Articles Produced
Vogue Rattan (Workers)	Lexington, KY	11/10/86	11/3/86	TA-W-18,602	Rattan furniture.
Bedcor Inc. (UMW)	Comfort, WV	11/10/86	11/3/86	TA-W-18,603	Coal.
Crucible Materials Corp., Trent Tube Div. (USWA)	East Troy, WI	11/5/86	10/31/86	TA-W-18,604	Stainless steel high alloy pipe & tube.
Dresser Industries Magcobar Div. (Workers)	Olney, IL	11/10/86	10/14/86	TA-W-18,605	Drilling mud & chemicals.
Classix of Miami (Workers)	Miami, FL	11/10/86	10/29/86	TA-W-18,606	Children's sportswear.
Brown & Root Marine (Workers)	Aransas Pass, TX	11/10/86	11/3/86	TA-W-18,607	Constructs offshore drilling platform.
Ford Coal Co. (Workers)	Hansford, WV	11/10/86	10/4/86	TA-W-18,608	Steam coal mining.
Stanley Well Service (Company)	Bryan, TX	11/10/86	11/4/86	TA-W-18,609	Oil well services.
RCA Consumer Electronics (Workers)	Indianapolis, IN	11/4/86	10/17/86	TA-W-18,610	Transformers.
Ilva Saronno (Workers)	Edison, NJ	11/13/86	8/25/86	TA-W-18,611	Buy bottles and package liquors.
Maurice L. Brown Co. (Workers)	Kansas City, MO	11/13/86	11/3/86	TA-W-18,612	Produce oil (crude) and natural gas.
TRW Reda Pump Company (Workers)	Midland, TX	11/13/86	11/6/86	TA-W-18,613	Submersible oil well pumps.
Harbison-Walker Refractory (USWA)	Mt. Union, PA	11/10/86	10/30/86	TA-W-18,614	Silica brick.
Wilson Drilling Ltd (Workers)	E. Albion, IL	11/10/86	11/1/86	TA-W-18,615	Oil well drilling.
Smurfit Newsprint Corp. (Workers)	Oregon City, OR	11/10/86	10/31/86	TA-W-18,616	Lumber.
BC Service Co. (Workers)	Wickett, TX	11/10/86	10/31/86	TA-W-18,617	Service oil well rigs.
Frontier Petroleum Services, Inc. (Workers)	Leveland, TX	11/10/86	10/30/86	TA-W-18,618	Service oil rigs.
Precision Geophysical Inc. (Workers)	Houston, TX	11/10/86	10/25/86	TA-W-18,619	Performs seismic studies.
Target Geophysical, Inc (Workers)	Denver, CO	11/10/86	11/2/86	TA-W-18,620	Collect and process seismic data.
U.S. Steel Mining Co., Gary No. 51 Mine (UMWA)	Wyoming County, WV	11/10/86	10/31/86	TA-W-18,621	Low volatile metallurgical coal.
U.S. Steel Mining Co., Alpheus Cleaning & Preparation Plant (UMWA)	McDowell Co., WV	11/10/86	10/31/86	TA-W-18,622	Low volatile metallurgical coal.
U.S. Steel Mining Co., Gary No. 2 Mine (UMWA)	McDowell Co., WV	11/10/86	10/31/86	TA-W-18,623	Low volatile metallurgical coal.
U.S. Steel Mining Co., Gary No. 4 Mine (UMWA)	McDowell Co., WV	11/10/86	10/31/86	TA-W-18,624	Low volatile metallurgical coal.
U.S. Steel Mining Co., Gary No. 14 Mine (UMWA)	McDowell Co., WV	11/10/86	10/31/86	TA-W-18,625	Low volatile metallurgical coal.
U.S. Steel Mining Co., Seneca Mine (UMWA)	McDowell Co., WV	11/10/86	10/31/86	TA-W-18,626	Low volatile metallurgical coal.
U.S. Steel Mining Co., Gary No. 50 Mine (UMWA)	Wyoming County, WV	11/10/86	10/31/86	TA-W-18,627	Low volatile metallurgical coal.
ATF Davidson Co. (USWA)	Whitinsville, MA	11/10/86	10/30/86	TA-W-18,628	Offset printing machines.
Umetco Minerals Corps. (USWA)	Hot Spgs, AR	11/10/86	10/29/86	TA-W-18,629	Ferrovandium.

[FR Doc. 26541 Filed 11-24-86; 8:45 am]

Billing Code 4510-30-M

[TA-W-18,424]

### WISCO (Williston Industrial Supply Corp.), Williston, ND; Termination of Investigation

Pursuant to section 221 of the Trade Act of 1974, an investigation was initiated on October 20, 1986 in response to a worker petition which was filed on behalf of workers at WISCO (Williston Industrial Supply Corporation), williston, North Dakota.

A negative determination applicable to the petitioning group of workers was issued on September 5, 1986 (TA-W-17,489). No new information is evident

which would result in a reversal of the Department's previous determination. Consequently, further investigation in this case would serve no purpose; and the investigation has been terminated.

Signed at Washington, DC this 7th day of November 1986.

**Marvin M. Fooks,**

*Director, Office of Trade Adjustment Assistance.*

[FR Doc. 86-26545 Filed 11-24-86; 8:45 am]

BILLING CODE 4510-30-M

### Labor Surplus Area Classifications; Additions to List of Labor Surplus Areas

**AGENCY:** Employment and Training Administration, Labor.

### ACTION: Notice.

**DATE:** The additions to the labor surplus area list are effective on November 1, 1986.

**SUMMARY:** The purpose of this notice is to announce additions to the list of labor surplus areas, which has been extended until further notice while the Department of Labor completes implementation of Pub. L. 99-272.

**FOR FURTHER INFORMATION CONTACT:** William J. McGarrity, Labor Economist, Employment and Training Administration, 200 Constitution Avenue, NW., Room N4470, Attention: TEESS, Washington, DC 20213. Telephone: 202-535-0185.

**SUPPLEMENTARY INFORMATION:**

Executive Order 12073 requires executive agencies to emphasize procurement set-asides in labor surplus areas. The Secretary of Labor is responsible under that Order for classifying and designating areas as labor surplus areas.

Under Executive Order 10582 executive agencies may reject bids or offers of foreign materials in favor of the lowest offer by a domestic supplier, provided that the domestic supplier undertakes to produce substantially all of the materials in areas of substantial unemployment as defined by the Secretary of Labor. The preference given to domestic suppliers under Executive Order 10582 has been modified by Executive Order 12260. Federal Procurement Regulations Temporary Regulation 57 (41 CFR Chapter 1, Appendix), issued by the General Services Administration on January 15, 1981, (46 FR 3519), implements Executive Order 12260. Executive agencies should refer to Temporary Regulation 57 in procurements involving foreign businesses or products in order to assess its impact on the particular procurements.

The Department of Labor regulations implementing Executive Orders 12073 and 10582 are set forth at 20 CFR Part 654, Subparts A and B. Subpart A requires the Assistant Secretary of Labor to classify jurisdictions as labor surplus areas pursuant to the criteria specified in the regulations and to publish annually a list of labor surplus areas. Pursuant to those regulations the Assistant Secretary of Labor published the annual list of labor surplus areas on October 11, 1985 (50 FR 41606).

Subpart B of Part 654 states that an area of substantial unemployment for purposes of Executive Order 10582 is any area classified as a labor surplus area under Subpart A. Thus, labor surplus areas under Executive Order 12073 are also areas of substantial unemployment under Executive Order 10582.

The areas described below have been classified by the Assistant Secretary of Labor as labor surplus areas pursuant to 20 CFR 654.5(b) (48 FR 15615 April 12, 1983) and are added to the list of labor surplus areas, effective November 1, 1986.

The following additions to the list of labor surplus areas are published for the use of all Federal agencies in directing procurement activities and locating new plants or facilities.

[FR Doc. 86-26543 Filed 11-24-86; 8:45 am]

BILLING CODE 4510-30-M

# ADDITIONS TO THE ANNUAL LIST OF LABOR SURPLUS AREAS

(November 1, 1986)

Labor surplus area	Civil jurisdiction included
Georgia: Albany City...	Albany City in Dougherty County.
North Dakota:	
Mercer County.....	Mercer County.
Slope County.....	Slope County.
Williams County.....	Williams County.
Oklahoma:	
Murray County.....	Murray County.
Stephens County.....	Stephens County.

Signed at Washington, DC, on November 18, 1986.

**Roger D. Semerad,**

*Assistant Secretary of Labor for Employment and Training.*

[FR Doc. 86-26543 Filed 11-24-86; 8:45 am]

BILLING CODE 4510-30-M

## Employment Standards Administration

### Advisory Committee on Sheltered Workshops; Meeting

A meeting of the Advisory Committee on Sheltered Workshops will be held in the Frances Perkins Building, Department of Labor, 200 Constitution Avenue, NW., Washington, DC on December 11 and 12 starting at 9:00 a.m. in Room N5437A and B. On December 12, the Committee will meet in Room S4215A and B beginning at 8:30 a.m.

The mission of the Advisory Committee is to provide guidance to the Department regarding the administration and enforcement of the Fair Labor Standards Act and other Federal minimum wage laws as they relate to the employment of handicapped individuals with impaired productivity at special lower minimum wages. The purposes of this meeting will be to discuss the recent amendments to section 14(c) of the Fair Labor Standards Act under which certificates are issued and to consider changes to the existing regulations.

On October 16, President Reagan signed the Amendments to the Fair Labor Standards Act of 1986 (Pub. L. 99-496). These Amendments completely revised that section of the Act providing for the payment of special minimum wages to handicapped workers under certificates issued by the Department. The Amendments reduce administrative burdens on employers by eliminating the need for various types of certificates and for physical separation of work activities centers from other sheltered workshop programs. The Amendments also provide a petition process for handicapped workers who wish to have their special minimum wage rates

reviewed by an Administrative Law Judge.

Discussion of the Amendments and the regulations will be the primary agenda items. The Advisory Committee will also take up certain administrative matters, such as election of officers, and may address other items if time permits.

The public is invited to attend all meetings. Written data, views, or arguments pertaining to the business before the Advisory Committee are invited. Such data, views, or arguments may be forwarded to the Committee Secretariat prior to the meeting or presented at the meeting.

Any inquiries concerning the meeting of the Advisory Committee may be directed to: Ms. Corlis Sellers, Secretariat for the Advisory Committee on Sheltered Workshops, Room C4316, Frances Perkins Department of Labor Building, 200 Constitution Avenue, NW., Washington, DC 20210, telephone number (202) 523-8727. This is not a toll free telephone number.

Signed in Washington, DC, this 14th day of November 1986.

**Paula V. Smith,**  
*Administrator.*

[FR Doc. 86-26540 Filed 11-24-86; 8:45 am]

BILLING CODE 4510-27-M

## Mine Safety and Health Administration

[Docket No. M-86-167-C]

### Clinchfield Coal Co.; Petition for Modification of Application of Mandatory Safety Standard

Clinchfield Coal Company, P.O. Box 7, Dante, Virginia 24237 has filed a petition to modify the application of 30 CFR 75.326 (aircourses and belt haulage entries) to its McClure No. 1 Mine (I.D. No. 44-04251) located in Russell County, Virginia. The petition is filed under section 101(c) of the Federal Mine Safety and Health Act of 1977.

A summary of the petitioner's statements follows:

1. The petition concerns the requirement that entries used as intake and return air courses be separated from belt haulage entries and that belt haulage entries not be used to ventilate active working places.

2. The mine has been designed for two active longwall sections and supporting continuous miner units.

3. Large quantities of methane gas in the coal bed and adjacent strata are anticipated for the mine.

4. Bureau of Mines and DOE in conjunction with the company have drilled five vertical methane drainage

holes into the coalbed. It is anticipated that vertical ventilation gob drainage holes will be necessary to bypass large amounts of methane from the return airways during extraction of longwall blocks.

5. Inherent roof conditions and maximum overburden of 2000 feet will limit the number of airways that can be developed safely.

6. As an alternate method, petitioner proposes that—

a. all entries will be used for airways.  
b. A carbon monoxide (CO) detection system, approved by MSHA, will be installed in all belt entries used as intake air course and at each belt drive and tailpiece located in intake air courses. The CO monitoring devices will be capable of giving warning automatically when the level of carbon monoxide is 10 parts per million (ppm) above ambient air. When the carbon monoxide level is 15 parts per million (ppm) above ambient air the CO monitors will initiate fire alarm signals at an attended location on the surface where there is two-way communication.

c. If the carbon monoxide system is deenergized for routine maintenance or for failure of a sensor unit, qualified persons will monitor the belt conveyor using hand-held carbon monoxide detecting devices.

d. A maintenance program will be established which will include weekly functional tests and calibration tests every 30 days.

e. Stoppings separating the belt haulage entry from intake and return air-courses will be erected and maintained in accordance with MSHA guidelines.

7. Petitioner states that the proposed alternate method will provide the same degree of safety for their miners affected as that afforded by the standard.

#### Request for Comments

Persons interested in this petition may furnish written comments. These comments must be filed with the Office of Standards, Regulations and Variances, Mine Safety and Health Administration, Room 627, 4015 Wilson Boulevard, Arlington, Virginia 22203. All comments must be postmarked or received in that office on or before December 26, 1986. Copies of the petition are available for inspection at that address.

Dated: November 17, 1986.

Patricia W. Silvey;

Associate Assistant Secretary for Mine Safety and Health.

[FR Doc. 86-26548 Filed 11-24-86; 8:45 am]

BILLING CODE 4510-43-M

## NUCLEAR REGULATORY COMMISSION

[Docket No. 50-412]

### Duquesne Light Co.; et al; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an extension of Construction Permit No. CPPR-105 to Duquesne Light Company, Cleveland Electric Illuminating Company, Ohio Edison Company and Toledo Edison Company (the Permittees), for the Beaver Valley Power Station, Unit No. 2 located in Shippingport, Pennsylvania.

#### Environmental Assessment

*Identification of Proposed Action:* The extension would change the expiration date of Construction Permit CPPR-105 from December 31, 1986 to December 31, 1987.

The extension is responsive to Duquesne Light Company's application for extension dated July 30, 1986.

*The Need for the Proposed Action:* The proposed extension is needed because the completion date of Beaver Valley Unit 2 has been postponed for the following reasons:

- (1) Reduced projected electric power need,
- (2) Increased regulatory requirements,
- (3) The permittees' financial problems,
- (4) Additional time needed to fully test and evaluate portions of the project.

*Environmental Impacts of the Proposed Action:* The proposed extension will not allow any work to be performed that is not already allowed by the existing construction permit. The probability of accidents has not been increased and post-accident radiological releases will not be greater than previously determined, nor does the proposed extension otherwise affect radiological plant effluents. Therefore, the Commission concludes that there are no significant radiological environmental impacts associated with this proposed extension.

With regard to potential non-radiological impacts, the proposed extension involves features located entirely within the restricted area as defined in 10 CFR Part 20. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant non-radiological environmental impacts associated with this proposed extension.

*Alternatives to the Proposed Action:* As required by section 102(2)(E) of NEPA (42 U.S.C. 4332(2)(E)), the staff has considered possible alternatives to

the proposed action. The only possible alternative to the proposed action is not to renew the construction permit. This alternative would lead to a change in status and would result in a greater impact on Duquesne Light personnel and the environment (the project is currently more than 95% complete).

Therefore, there is no appropriate alternative to the proposed action. *Alternative Use of Resources:* This action involves no use of resources not previously considered in the Final Environmental Statement (construction permit and operating license) for the Beaver Valley Power Station, Unit No. 2.

*Agencies and Persons Consulted:* The NRC staff reviewed the permittees' request and did not consult other agencies or persons.

#### Finding of No Significant Impact

The Commission has determined not to prepare an environmental impact statement for the proposed extension.

Based upon the foregoing environmental assessment, the staff concludes that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the request for the extension dated July 30, 1986, which is available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, DC, and at the B. F. Jones Memorial Library, 663 Franklin Avenue, Aliquippa, Pennsylvania 15001.

Dated at Bethesda, Maryland this 17th day of November, 1986.

For the Nuclear Regulatory Commission.

Lester S. Rubenstein,

Director, PWR Project Directorate #2  
Division of PWR Licensing-A.

[FR Doc. 86-26569 Filed 11-24-86; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 50-346]

### Toledo Edison Co.; (Davis-Besse Nuclear Power Station, Unit 1); Issuance of Director's Decision

Notice is hereby given that the Director, Office of Inspection and Enforcement, has issued a Director's Decision pursuant to 10 CFR 2.206 concerning two Petitions, one filed by the State of Ohio on October 24, 1986 and one filed on behalf of the Toledo Coalition for Safe Energy and Susan A. Carter on October 28, 1986.

The State of Ohio had requested that the Commission institute proceedings to suspend the operating license of the Davis-Besse Nuclear Power Station of

the Toledo Edison Company (licensee) until such time as the facility was in compliance with the Commission's regulations regarding emergency planning. The State of Ohio alleged in its Petition that the Governor of Ohio had withdrawn his support for the evacuation plans for the Davis-Besse Nuclear Power Plant and had further created the Ohio Emergency Evacuation Review Team (EERT). The Petition alleged that the EERT had found serious deficiencies in the emergency plans associated with the Davis-Besse facility. The Petition further alleged that to date, the Federal Emergency Management Agency (FEMA), had not issued any formal statement of adequacy concerning the Davis-Besse emergency plans. Thus, the Petition asserted that Davis-Besse had been operated without an approved emergency plan since its inception in violation of NRC regulations.

The second Petition, requested that the Commission require the licensee to show cause why its operating license for the Davis-Besse facility should not be suspended or terminated for alleged deficiencies in the area of emergency planning. The Petition asserted the absence of an approved offsite plan for Lucas County, Ohio and noted as a particular deficiency the failure to include planning for Jerusalem Township, a part of Lucas County. The Petition further alleged that a resolution of October 20, 1986 by the Northwest District of the Ohio Association of Public School Employees, American Federation of State, County and Municipal Employees, AFL-CIO not to participate in planning or evacuation in the case of an emergency at the Davis-Besse facility raised serious questions and doubts as to the efficacy of the existing emergency plans for that facility as extensive reliance is placed in that planning upon cooperation of union members who would act as volunteer drivers to transport children and adults with special transportation needs in the event of a nuclear incident at the Davis-Besse facility.

Both Petitions requested that Commission keep the Davis-Besse facility shut down pending resolution of the emergency planning issues raised.

The Director, Office of Inspection and Enforcement, has denied that relief requested in the two Petitions. The reasons for this decision are explained in the "Director's Decision Pursuant to 10 CFR § 2.206" (DD-86-17), which is available for public inspection in the Commission's Public Document Room, 1717 H Street NW., Washington, DC and the Local Public Document Room for the

Davis-Besse facility located at the University of Toledo, 2801 West Bancroft, Toledo, Ohio 43606.

A copy of this decision will be filed with the Secretary for Commission review in accordance with 10 CFR 2.206(c). As provided in 10 CFR 2.206(c), the decision will become the final action of the Commission twenty-five days after issuance, unless the Commission on its own motion institutes review of the decision within that time.

Dated at Bethesda, Maryland this 19th day of November, 1986.

For the Nuclear Regulatory Commission.

**James M. Taylor,**  
*Director, Office of Inspection and Enforcement.*

[FR Doc. 86-26568 Filed 11-24-86; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 40-8027]

**Sequoyah Fuels Corp., Sequoyah Facility, Gore, OK; Receipt of Petition for Director's Decision**

Notice is hereby given that by a Memorandum and Order dated October 10, 1986 Administrative Law Judge John H. Frye, III, has referred certain matters relating to the Sequoyah Fuels Corporation to the staff for consideration under 10 CFR 2.206.

In a complaint filed with the Atomic Safety and Licensing Board dated June 8, 1986 entitled "Response to Order of May 22, 1986," Barbara Synar raised, among other matters, concerns over the expansion of SFC's ammonium nitrate fertilizer program. These concerns were also raised in letters written to the Commission by Native Americans for a Clean Environment (NACE) dated May 22; Paula Strachan, dated June 10; and David Singer Burtner, dated June 26 and September 23, 1986. In his October 10 Memorandum and Order, Judge Frye has referred the portion of Ms. Synar's complaint relating to SFC's fertilizer program along with the above referenced letters to the staff for consideration under 10 CFR 2.206.

In a complaint filed with the Atomic Safety and Licensing Board dated June 18, 1986 entitled "Motion to Accept Specific Complaints," Ed Henshaw raised, among other matters, concerns regarding the adequacy of security at the Sequoyah Fuels facility. In his October 10 Memorandum and Order, Judge Frye has referred this portion of Mr. Henshaw's complaint to the staff for consideration under 10 CFR 2.206.

These matters are being treated as a request for action pursuant to 10 CFR 2.206 of the Commission's regulations. As provided by § 2.206, appropriate

action will be taken on the Petitions within a reasonable time.

Copies of the Petitions are available for inspection in the Commission's Public Document Room, 1717 H Street NW., Washington, DC, and in the local public document room for the facility located at Sallisaw City Library, 101 East Cherokee, Sallisaw, Oklahoma 74955.

Dated at Bethesda, Maryland, this 14th day of November 1986.

For the Nuclear Regulatory Commission.

**James M. Taylor,**  
*Director, Office of Inspection and Enforcement.*

[FR Doc. 86-26471 Filed 11-24-86; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 50-482]

**Kansas Gas and Electric Co; Consideration of Issuance of Amendment To Facility Operating License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing**

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-42, issued to Kansas Gas and Electric Company, Kansas City Power and Light Company, and Kansas Electric Power Cooperative, Inc. (the licensee), for operation of the Wolf Creek Generating Station located in Coffey County, Kansas. These changes were requested in the licensee's letter dated November 7, 1986.

The proposed amendment would change Technical Specification 3.5.1.a to allow closure of one ECCS accumulator isolation valve in MODE 3 above 1000 psig during startup, while performing Surveillance Requirement 4.4.6.2.2. This will only be done providing RHR pump discharge valves EJ HV-8809A and/or B are not closed and the closed isolation valve is capable of being reopened.

Also, the proposed amendment would change Technical Specification 3.5.2.e to allow closure of EJ HV-8809A and/or B in MODE 3 during startup, while performing Surveillance Requirement 4.4.6.2.2. This will only be done providing the closed valve(s) is (are) capable of being reopened and pressurizer pressure is below 1000 psig, and if above 100 psig, no ECCS accumulator isolation valve is closed.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended

(the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

In accordance with the requirements of 10 CFR 50.92, the licensee submitted the following significant hazards determination: The proposed change to Technical Specification 3.5.1 does not involve a significant hazards consideration because operation of Wolf Creek Generating Station in accordance with this change would not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated. The maximum credible LOCA to be considered for the RCS pressure boundary during *shutdown* operation would be a 6 inch pipe break. It has been determined that low pressure shutdown and startup operating conditions are so far below the conditions for which the Reactor Coolant System (RCS) Loss of Coolant Accident (LOCA) is not credible that (and) for all practical purposes this accident can be assumed not to occur. For *this credible* LOCA, the RCS break flow rate and depressurization rate are significantly less than for a design basis large break LOCA. For *startup* conditions, however, the break flow and depressurization rates would be further reduced due to the lower initial RCS pressure and temperature. In addition, the initial fuel rod temperature and decay heat level would be significantly less than for full power since the reactor would have been shutdown for a period of time. With this longer depressurization time and lower decay levels, there is ample time available for operator action to open the closed accumulator valve.

(2) Create the possibility of a new or different kind of accident from any accident previously evaluated. This Technical Specification change pertains to LOCAs and to how much Emergency Core Cooling System (ECCS) flow is available immediately and after operator action. The possible slight delay in initiating full ECCS flow does not affect any other kind of accident.

(3) Involve a significant reduction in a margin of safety. The 10 CFR 50.59 Safety Evaluation for this Technical Specification amendment has concluded that the maximum credible LOCA during heatup is the rupture of a 6 inch pipe. During the period of time when this valve may be closed per the proposed Amendment, RCS pressure will be above the pressure at which the accumulators can inject water. Therefore it is concluded that during the depressurization of the RCS following a LOCA, the operators will recognize the condition and will be able to reopen the closed accumulator valve and prevent any significant fuel heatup. The valve will be able to be reopened from the main control room during this period.

The proposed change to Technical Specification 3.5.2 does not involve a significant hazards consideration because operation of Wolf Creek Generating Station in accordance with this change would not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated. It has been determined that low pressure shutdown and startup operating conditions are so far below the conditions for which the RCS has been designed, that a large LOCA is not credible and for all practical purposes can be assumed not to occur. It has been concluded that the maximum credible LOCA to be considered for the RCS pressure boundary during shutdown operation would be a 6 inch pipe break. For a credible LOCA, the RCS break flow rate and depressurization rate is significantly less than for a design basis large break LOCA. For startup conditions, the break flow and depressurization rates would be further reduced due to the lower initial RCS pressure and temperature. In addition, the initial fuel rod temperature and decay heat level would be significantly less than for full power since the reactor would have been shutdown for a period of time. With this longer depressurization time and lower decay heat levels, there is ample time available for operator action to open the closed RHR valve or valves.

(2) Create the possibility of a new or different kind of accident from any accident previously evaluated. This Technical Specification change pertains to LOCAs and to how much ECCS flow is available immediately and after operator action. The possible slight delay in initiating full ECCS flow does not affect any other kind of accident.

(3) Involve a significant reduction in a margin of safety. The 10 CFR 50.59 Safety Evaluation for this Technical

Specification amendment has concluded that the maximum credible LOCA during heatup is the rupture of a 6 inch pipe. During the period of time when EJ HV-8809A and/or B may be closed per the proposed Amendment, RCS pressure will be above the pressure at which the RHR pumps can inject water. Therefore it is concluded that during the depressurization of the RCS following a LOCA, the operators will recognize the condition and will be able to reopen the respective closed valve(s) and prevent any significant fuel heatup. The valve(s) will be able to be reopened from the main control room during this period.

During startup, the low pressure safety injection signal is blocked until RCS pressure exceeds 1,970 psig. Therefore should a LOCA occur below 1,970 psig, operator action would be required to initiate any ECCS flow. When this occurs, the operator will also open any valves that had been closed. If above 1,970 psig, the safety injection signal will be unblocked. Should a LOCA occur, the safety injection signal will start both centrifugal charging pumps, both safety injection pumps, both RHR pumps and if any accumulator valve is closed, it will automatically open it. Since the RHR pumps cannot inject water until RCS pressure drops to approximately 190 psig, two charging pumps, two safety injection pumps and four accumulators will be injecting or will have injected into the core before the RCS has depressurized to 190 psig. This allows adequate time for the operator to open EJ HV-8809A and/or B, before the pumps are needed to inject.

Based on the above analysis, the licensee concluded that the proposed amendment does not involve significant hazards considerations. The staff has reviewed the licensee's significant hazards consideration determination and agrees with the licensee's analysis. The staff has, therefore, made a proposed determination that the licensee's request does not involve a significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination. The Commission will not normally make a final determination unless it receives a request for a hearing.

Written comments may be submitted to the Rules and Procedures Branch, Division of Rules and Records, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

Comments may also be delivered to Room 4000, Maryland National Bank Building, Bethesda, Maryland from 8:15 a.m. to 5:00 p.m., Monday through Friday. Copies of comments received may be examined at the NRC Public Document Room, 1717 H Street, NW., Washington, DC.

By December 26, 1986, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person who interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written petition for leave to intervene. Request for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) The nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of

the contentions which are sought to be litigated in the matter, and the bases for each contention set forth with reasonable specificity. Contentions shall be limited to matters within the scope of the amendment under consideration. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitation in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination of the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room 1717 H Street, NW., Washington, DC, by the above date.

Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at (800) 325-6000 (in Missouri (800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following messaged addressed to B.J. Youngblood: petitioner's name and telephone number; date petition was mailed; plant name; and publication date and page number of this Federal Register notice. A copy of the petition should also be sent to the Executive Legal Director, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to Jay Silberg, Esq., Shaw Pittman, Potts and Trowbridge, 1800 M Street, NW., Washington, DC 20036, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment which is available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, DC, and at the Emporia State University, William Allen White Library, 1200 Commercial Street, Emporia, Kansas and the Washburn University School of Law library, Topeka, Kansas.

Dated at Bethesda, Maryland, this 19th day of November 1986.

For the Nuclear Regulatory Commission.

**B.J. Youngblood,**  
*Director, PWR Project Directorate No. 4,*  
*Division of PWR Licensing—A, NRR.*

[FR Doc. 86-26570 Filed 11-24-86, 8:45 am]

BILLING CODE 7590-01-M

#### [Dockets Nos. 50-277/278]

#### **Philadelphia Electric Co.; Peach Bottom Atomic Power Station, Units 2 and 3; Exemption**

I

The Philadelphia Electric Company (the licensee) is the holder of Facility Operating License No. DPR-44 which authorizes operation of the Peach Bottom Atomic Power Station, Unit 2 and Facility Operating License No. DPR-56 which authorizes operation of Peach

Bottom Atomic Power Station, Unit 3. These operating licenses provide, among other things, that the Peach Bottom Atomic Power Station is subject to all rules, regulations, and Orders of the Commission now or hereafter in effect.

The station comprises two boiling water reactors at the licensee's site located in York County, Pennsylvania.

## II

On November 19, 1980, the Commission published a revised Section 50.48 and a new Appendix R to 10 CFR Part 50 regarding fire protection features of nuclear power plants. The revised Section 50.48 and Appendix R became effective on February 17, 1981. Section III of Appendix R contains 15 subsections, lettered A through O, each of which specified requirements for a particular aspect of the fire protection features at a nuclear power plant. Two of these subsections, III.F and III.M, are the subject of the licensee's exemption request.

Section III.F requires that for areas where alternative or dedicated shutdown is provided, fire detection and a fixed fire suppression system shall also be installed in the area, room, or zone under consideration. Subsection III.M of Appendix R requires that penetration seals utilize only noncombustible materials.

## III

By letter dated May 27, 1983, the licensee requested an exemption from section III.M of Appendix R to 10 CFR 50 to the extent that Section III.M requires penetration seals which utilize only noncombustible materials. By letters dated July 22, 1983, September 16, 1983, December 2, 1983, February 10, 1984, September 17, 1984, January 16, 1985 and September 24, 1985, the licensee provided additional information to support the exemption request.

By letter dated September 16, 1983, the licensee also requested an exemption from the requirements of Section III.F of Appendix R. Section III.F of Appendix R requires the installation of automatic fire detection systems in all areas of the plant that contain or present an exposure fire hazard to safe shutdown or safety-related systems or components.

In the NRC's staff meeting summary dated May 13, 1986, the licensee provided information relevant to the "special circumstances" finding required by revised 10 CFR 50.12(a) (see 50 FR 50764). The licensee's information is summarized as follows:

### (i) Penetration Seals.

The technical requirement of Section III.M of Appendix R would not be met

because certain penetration seals are not entirely constructed of noncombustible materials. However, the licensee states that they have committed to refurbishing all subject seals used in fire rated barriers in accordance with the staff accepted ASTM tests. Therefore, it is the licensee's position that the modified seals will provide adequate performance under fire conditions and provide an equivalent level of protection to that required by section III.M. Thus, the application of the regulation in this particular circumstance is not necessary to achieve the underlying purpose of the rule (see 10 CFR 50.12(a)(2)(ii)). Additionally, compliance with section III.M concerning the subject seals would result in costs that are significantly in excess of those contemplated when the regulation was adopted since it would result in the complete removal and total replacement of all seals in question.

### (ii) Emergency Cooling Tower Fire Detectors.

The licensee stated that although safety-related cables in conduits are located in this area (stairwell), no other fixed combustibles are present and access is controlled by security personnel. This area is not used for storage and current administrative controls on combustibles preclude the presence of a fire hazard. Therefore, application of the regulation (section III.F of Appendix R) in this particular circumstance is not necessary to achieve the underlying purpose of the rule (safe shutdown).

The staff concludes that "special circumstances" exist for the licensee's requested exemptions in that the application of the regulation in these particular circumstances is not necessary to achieve the underlying purposes of Appendix R to 10 CFR 50.12(a)(2)(ii).

The following list of exemption requests, therefore, reflects the latest status:

### (i) Penetration Seals.

The technical requirement of section III.M of Appendix R would not be met because certain penetration seals are not entirely constructed of noncombustible materials.

### (ii) Emergency Cooling Tower Fire Detector.

An exemption was requested from the specific requirements of Section III.F to the extent that automatic fire detection in this area would not be provided.

The acceptability of these exemption requests is addressed below. Details are contained in the NRC staff's concurrently issued Safety Evaluations.

## Discussion

In response to the new fire protection rule Appendix R to 10 CFR Part 50, the licensee committed to upgrade all penetration seals in barriers used to separate redundant safe shutdown equipment which the staff had previously questioned. Upon further investigation of this open item the licensee determined that approximately 6,250 seals in 341 fire barriers needed to be upgraded, and in some cases, the licensee further concluded that certain penetration seals would require removal and replacement with fire rated seals. By letter dated May 27, 1983, the licensee indicated that instead of replacing penetration seals in accordance with III.M of Appendix R in some cases, existing seals which contain combustible materials would be modified and the modified seal would be tested in accordance with appropriate ASTM testing requirements. By letter dated September 24, 1985, the licensee stated that the redesigned penetration seals used in fire rated barriers will be refurbished with modified penetration seals which have been successfully tested and approved under appropriate ASTM standards.

Based on the licensee's commitments and the tests conducted on the redesigned penetration seals, we find the modified seals which contain combustible material will provide adequate performance under fire conditions and will provide an equivalent level of protection to that required by section III.M of Appendix R.

The technical requirements of section III.F are not met in the Emergency Cooling Tower Stairwell because automatic fire detection systems have not been installed. The combustible loading in the stairwell is negligible. Consequently, a fire of any significant magnitude or duration is not expected. Therefore, the safety-related cabling in the stairwell would not be prone to fire damage. Therefore, we find that installation of automatic fire detection systems would not significantly increase the level of fire protection in these areas.

## IV

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a)(1) the exemptions as described in section III are authorized by law and will not present an undue risk to the public health and safety; and are consistent with common defense and security and (2) special circumstances are present for the exemptions in that application of the regulation in these

particular circumstances is not necessary to achieve the underlying purpose of Appendix R to 10 CFR Part 50. Therefore, the Commission hereby grants the following exemptions from the requirements of section III.M and III.F of Appendix R to 10 CFR Part 50:

(i) Penetration Seals.

An exemption to the technical requirement of section III.M of Appendix R to have penetration seals entirely constructed of noncombustible materials.

(ii) Emergency Cooling Tower Fire Detectors.

An exemption from the specific requirements of section III.F to the extent that automatic fire detection in the emergency cooling tower does not have to be provided.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of these exemptions will have no significant impact on the environment (51 FR 41450).

This Exemption is effective upon issuance.

Dated at Bethesda, Maryland this 14th day of November 1986.

For the Nuclear Regulatory Commission.

**R. Wayne Houston,**

*Deputy Director, Division of BWR Licensing.*

[FR Doc. 86-26472 Filed 11-24-86; 8:45 am]

BILLING CODE 7590-01-M

[Docket Nos. 50-361-OL and 50-362-OL; ASLBP No. 86-538-06-OL-R]

**Southern California Edison Company et al.; Establishment of Atomic Safety and Licensing Board**

Pursuant to delegation by the Commission dated December 29, 1972, published in the *Federal Register*, 37 FR 28710 (1972), and Sections 2.105, 2.700, 2.702, 2.714, 2.714a, 2.717 and 2.721 of the Commission's Regulations, all as amended, an Atomic Safety and Licensing Board is being established to preside over the following proceeding.

Southern California Edison Company, et al.; San Onofre Nuclear Generating Station, Units 2 and 3

This Atomic Safety and Licensing Board is being designated pursuant to the provisions of a Remand Order issued by the Commission on September 12, 1986 regarding the planning standard 10 CFR 50.47(b)(12) which requires pre-accident arrangements for medical services for individuals who might be severely exposed to dangerous levels of offsite radiation following an accident at a nuclear power plant. In its Order the Commission remanded the matter to the Atomic Safety and Licensing Board and

directed that it should be held in abeyance until the staff's detailed, generic guidance on planning standard (b)(12) is issued and implemented.

The Board is comprised of the following administrative judges:

James L. Kelly, Chairman, Atomic Safety and Licensing Board Panel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555

Cadet H. Hand, Jr., University of California, P.O. Box 247, Bodega Bay, California 94923

Elizabeth B. Johnson, Oak Ridge National Laboratory, P.O. Box X, Building 3500, Oak Ridge, Tennessee 37830

Issued at Bethesda, Maryland, this 18th day of November, 1986.

**B. Paul Cotter, Jr.**

*Chief Administrative Judge, Atomic Safety and Licensing Board Panel.*

[FR Doc. 86-26567 Filed 11-24-86; 8:45am]

BILLING CODE 7590-01-M

**RAILROAD RETIREMENT BOARD**

**Agency Forms Submitted for OMB Review**

**AGENCY:** Railroad Retirement Board.

**ACTION:** In accordance with the Paperwork Reduction Act of 1980 (44 U.S.C. Chapter 35), the Board has submitted the following proposal(s) for the collection of information to the Office of Management and Budget for review and approval.

**Summary of Proposal(s)**

- (1) Collection title: Annual Earnings Monitoring
- (2) Form(s) submitted: G-19b
- (3) Type of request: New collection
- (4) Frequency of use: One-time collection
- (5) Respondents: Individuals or households
- (6) Annual responses: 35,000
- (7) Annual reporting hours: 2,333
- (8) Collection description: The reports obtain information about an annuitant's employment and earnings. Under the RRA, an annuity can be reduced or not paid depending on the amount of earnings and type of work performed.

**Additional Information or Comments**

Copies of the proposed forms and supporting documents may be obtained from Pauline Lohens, the agency clearance officer (312-751-4692). Comments regarding the information collection should be addressed to Pauline Lohens, Railroad Retirement Board, 844 Rush Street, Chicago, Illinois 60611 and the OMB reviewer, Judy Egan

(202-395-6880), Office of Management and Budget, Room 3208, New Executive Office Building, Washington, DC 20503.

**Pauline Lohens,**

*Director of Information and Data Management.*

[FR Doc. 86-26493 Filed 11-24-86; 8:45 am]

BILLING CODE 7905-010-M

**SMALL BUSINESS ADMINISTRATION**

**[Declaration of Disaster Loan Area #2258; Amdt. 2]**

**Declaration of Disaster Loan Area; Missouri**

The above-numbered Declaration (51 FR 37532), as amended (51 FR 40099), is hereby further amended in accordance with the Notice of Amendment to the President's disaster declaration, dated October 28, 1986, to include Vernon County and the adjacent County of Cooper in the State of Missouri because of damage from severe storms and flooding beginning on September 18, 1986. All other information remains the same; i.e., the termination date for filing applications for physical damage is the close of business on December 15, 1986, and for economic injury until the close of business on July 14, 1987.

(Catalog of Federal Domestic Assistance Programs Nos. 59002 and 5900S)

Dated: October 30, 1986.

**Bernard Kulik,**

*Deputy Associate Administrator for Disaster Assistance.*

[FR Doc. 86-26494 Filed 11-24-86; 8:45 am]

BILLING CODE 8025-01-M

**Region IV Advisory Council (Alabama); Public Meeting**

The U.S. Small Business Administration, Region IV Advisory Council, located in the geographical area of Birmingham, Alabama, will hold a public meeting from 9:00 a.m. to 1:00 p.m., on Friday, December 19, 1986 in the Birmingham District Office of the Small Business Administration, 2121 8th Avenue, North, Suite 200, Birmingham, Alabama 35203, to discuss such matters as may be presented by members, staff of the Small Business Administration, or other present.

For further information, write or call James C. Barksdale, District Director, at the above address, (205) 731-1341.

**Jean M. Nowak,**

*Director, Office of Advisory Councils.*

November 18, 1986.

[FR Doc. 86-26495 Filed 11-24-86; 8:45 am]

BILLING CODE 8025-01-M

### Region IX Advisory Council (California); Public Meeting

The U.S. Small Business Administration Region IX Advisory Council located in the geographical area of Fresno, will hold a public meeting at 9:00 a.m. on December 18, 1986 at the Fresno District Office, 2202 Monterey Street, Suite 108, Fresno, California to discuss such matters as may be presented by members, staff of the Small Business Administration, or others present.

For further information, write or call Mr. Peter J. Bergin, District Director, U.S. Small Business Administration, 2202 Monterey Street, Suite 108, Fresno, California 93721, (209) 487-5791.

Jean M. Nowak,

*Director, Office of Advisory Councils.*

November 18, 1986.

[FR Doc. 86-26496 Filed 11-24-86; 8:45 am]

BILLING CODE 8025-01-M

### Region V Advisory Council (Ohio); Public Meeting

The U.S. Small Business Administration Region V Advisory Council, located in the geographic area of Cleveland, will hold a public meeting at 9:00 a.m., on Friday, December 12, 1986, at the Cuyahoga Community College Metropolitan Campus, E. 30th and Community College Avenue, Meeting Room 210, Business and Administration Building, Cleveland, Ohio to discuss such matters as may be presented by members, staff of the U.S. Small Business Administration, or others present.

For further information, write or call S. Charles Hemming, District Director, U.S. Small Business Administration, 1240 East Ninth Street, Room 317, Cleveland, Ohio 44199, (216) 522-4182.

Jean M. Nowak,

*Director, Office of Advisory Councils.*

November 18, 1986.

[FR Doc. 86-26497 Filed 11-24-86; 8:45 am]

BILLING CODE 8025-01-M

### Region VI Advisory Council (Texas); Public Meeting

The U.S. Small Business Administration Region VI Advisory Council located in the geographical area of Dallas, Texas, will hold a public meeting at 9:30 a.m., on Wednesday, December 17, 1986, at the LaQuinta Motor Hotel in Nacogdoches, Texas, to discuss such matters as may be presented by members, staff of the U.S. Small Business Administration, or others present. For further information,

write or call James S. Reed, District Director, U.S. Small Business Administration, 1100 Commerce, Room 3036, Dallas, Texas 75242, telephone (214) 767-0600.

Jean M. Nowak,

*Director, Office of Advisory Councils.*

November 18, 1986.

[FR Doc. 86-26498 Filed 11-24-86; 8:45 am]

BILLING CODE 8025-01-M

## DEPARTMENT OF TRANSPORTATION

### Office of the Secretary

#### Fitness Determination of MST Aviation, Inc.; Order To Show Cause

**AGENCY:** Department of Transportation.

**ACTION:** Notice of Commuter Air Carrier Fitness Determination—Order 86-11-43, Order to Show Cause.

**SUMMARY:** The Department of Transportation is proposing to find that MST Aviation, Inc., is fit, willing, and able to provide commuter air service under section 419(c)(2) of the Federal Aviation Act.

**RESPONSES:** All interested persons wishing to respond to the Department of Transportation's tentative fitness determination should file their responses with the Special Authorities division, P-47, Department of Transportation, 400 7th Street SW., Room 6420, Washington, DC 20590, and serve them on all persons listed in Attachment A to the order. Responses shall be filed no later than December 22, 1986.

#### FOR FURTHER INFORMATION CONTACT:

Kathy A. Lusby, Special Authorities Division, Department of Transportation, 400 7th Street SW., Washington, DC 20590 (202) 366-2337.

Dated: November 19, 1986.

Matthew V. Scocozza,

*Assistant Secretary for Policy and International Affairs.*

[FR Doc. 86-26522 Filed 11-24-86; 8:45 am]

BILLING CODE 4910-62-M

## DEPARTMENT OF THE TREASURY

### Public Information Collection Requirements Submitted to OMB for Review

Date: November 19, 1986.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1980, Pub. L. 96-511. Copies of the submission(s) may be obtained by

calling the Treasury Bureau Clearance Officer listed. Comments regarding these information collections should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Room 7313, 1201 Constitution Avenue, NW., Washington DC 20220.

### Financial Management Service

**OMB Number:** 1510-0037

**Form Number:** TFS 5135

**Type of Review:** Extension

**Title:** Voucher for Payment of Awards

**Clearance Officer:** Douglas C. Lewis, Financial Management Service, Room 100, 3700 East West Highway, Hyattsville, MD 20782

**OMB Reviewer:** Milo Sunderhauf (202) 395-6880, Office of Management and Budget, Room 3208, New Executive Office Building, Washington, D.C. 20503

### Internal Revenue Service

**OMB Number:** 1545-0168

**Form Number:** IRS Form 4361

**Type of Review:** Revision

**Title:** Application for Exemption from Self-Employment Tax for Use by Ministers, Members of Religious Orders and Christian Science Practitioners

**OMB Number:** 1545-0172

**Form Number:** IRS Forms 4562 and 4562A

**Type of Review:** Revision

**Title:** Depreciation and Authorization; Depreciation of Property Placed in Service After December 31, 1986

**OMB Number:** 1545-0429

**Form Number:** IRS Form 4506

**Type of Review:** Revision

**Title:** Request for Copy of Tax Form  
**Clearance Officer:** Garrick Shear (202) 566-6150, Room 5571, 1111 Constitution Avenue, NW., Washington, DC 20224

**OMB Reviewer:** Milo Sunderhauf (202) 395-6880, Office of Management and Budget, Room 3208, New Executive Office Building, Washington, DC 20503

Douglas J. Colley,

*Departmental Reports Management Office.*

[FR Doc. 86-26539 Filed 11-24-86; 8:45 am]

BILLING CODE 4810-25-M

### Public Information Collection Requirements Submitted to OMB for Review

Date: November 19, 1986.

The Department of Treasury has submitted the following public information collection requirement(s) to OMB for review and clearance under

the Paperwork Reduction Act of 1980, Pub. L. 96-511. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding these information collections should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Room 7313, 1201 Constitution Avenue NW., Washington, DC 20220.

#### Internal Revenue Service

*OMB Number:* New

*Form Number:* IRS Form 2031

*Type of Review:* New

*Title:* Waiver Certificate for Use by Ministers, Members of Religious Orders and Christian Science Practitioners Electing Coverage Under the Social Security Act

*OMB Number:* 1545-0008

*Form Number:* IRS Forms W-2, W-2c, W-2P, W-2AS, W-2GU, W-2VI, W-3, W-3c, W-3cPR, W-3PR, W-3SS

*Type of Review:* Revision

*Title:* Wage and Tax Statement

*OMB Number:* 1545-0747

*Form Number:* IRS Form 5498

*Type of Review:* Revision

*Title:* Individual Retirement

*Arrangement Information*

*Clearance Officer:* Garrick Shear (202)

566-6150, Room 5571, 1111

Constitution Avenue NW.,

Washington, DC 20224

*OMB Reviewer:* Milo Sunderhauf (202)

395-6880, Office of Management and

Budget, Room 3208, New Executive

Office Building, Washington, DC 20503

Douglas J. Colley,

*Departmental Reports Management Office.*

[FR Doc. 86-26538 Filed 11-24-86; 8:45 am]

BILLING CODE 4810-25-M

#### Public Information Collection Requirements Submitted to OMB for Review

Date: November 19, 1986.

The Department of the Treasury has made revisions and resubmitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1980, Pub. L. 96-511. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding these information collections should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Room 7313, 1201 Constitution Avenue, NW., Washington, DC 20220.

#### Internal Revenue Service

*OMB Number:* 1545-0128

*Form Number:* IRS Form 1220L

*Type of Review:* Resubmission

*Title:* U.S. Life Insurance Company

*Income Tax Return*

*OMB Number:* 1545-0129

*Form Number:* IRS Form 1120-POL

*Type of Review:* Resubmission

*Title:* U.S. Income Tax Return for

*Certain Political Organizations*

*OMB Number:* 1545-0145

*Form Number:* IRS Form 2439

*Type of Review:* Resubmission

*Title:* Notice to Shareholder of

*Undistributed Long-Term Capital*

*Gains*

*OMB Number:* 1545-0687

*Form Number:* IRS Form 990-T

*Type of Review:* Resubmission

*Title:* Exempt Organization Business

*Income Tax Return*

*OMB Number:* 1545-0978

*Form Number:* IRS Form 990-W

*Type of Review:* Resubmission

*Title:* Worksheet for Estimated Tax for

*Tax-Exempt Trusts*

*Clearance Officer:* Garrick Shear (202)

566-6150, Room 5571, 1111

Constitution Avenue, NW.,

Washington, DC 20224

*OMB Reviewer:* Milo Sunderhauf (202)

395-6880, Office of Management and

Budget, Room 3208, New Executive

Office Building, Washington, DC 20503

Douglas J. Colley,

*Departmental Reports Management Office.*

[FR Doc. 86-26537 Filed 11-24-86; 8:45 am]

BILLING CODE 4810-25-M

#### Public Information Collection Requirements Submitted to OMB for Review

Date: November 19, 1986.

The Department of the Treasury has made revisions and resubmitted the following public information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1980, Pub. L. 96-511. Copies of the submission(s) may be obtained by calling the Treasury Bureau Clearance Officer listed. Comments regarding these information collections should be addressed to the OMB reviewer listed and to the Treasury Department Clearance Officer, Room 7313, 1201 Constitution Avenue, NW., Washington, DC 20220.

#### Internal Revenue Service

*OMB Number:* 1545-0123

*Form Number:* IRS Form 1220

*Type of Review:* Resubmission

*Title:* U.S. Corporation Income Tax

*Return*

*OMB Number:* 1545-0155

*Form Number:* IRS Form 3468

*Type of Review:* Resubmission

*Title:* Computation of Investment Credit

*Clearance Officer:* Garrick Shear (202)

566-6150, Room 5571, 1111

Constitution Avenue, NW.,

Washington, DC 20224

*OMB Reviewer:* Milo Sunderhauf (202)

395-6880, Office of Management and

Budget, Room 3208, New Executive

Office Building, Washington, DC 20503

Douglas J. Colley,

*Departmental Reports Management Office.*

[FR Doc. 86-26536 Filed 11-24-86; 8:45 am]

BILLING CODE 4810-25

[Dept. Circ.—Public Debt Series—No. 38-86]

#### Treasury Notes of February 15, 1992, Series H-1992

November 19, 1986.

#### 1. Invitation for Tenders

1.1. The Secretary of the Treasury, under the authority of Chapter 31 of Title 31, United States Code, invites tenders for approximately \$8,250,000,000 of United States securities, designated Treasury Notes of February 15, 1992, Series H-1992 (CUSIP No. 912827 UH 3), hereafter referred to as Notes. The Notes will be sold at auction, with bidding on the basis of yield. Payment will be required at the price equivalent of the yield of each accepted bid. The interest rate on the Notes and the price equivalent of each accepted bid will be determined in the manner described below. Additional amounts of the Notes may be issued at the average price to Federal Reserve Banks, as agents for foreign and international monetary authorities.

#### 2. Description of Securities

2.1. The Notes will be dated December 3, 1986, and will accrue interest from that date, payable on a semiannual basis on August 15, 1987, and each subsequent 6 months on February 15, and August 15 through the date that the principal becomes payable. They will mature February 15, 1992, and will not be subject to call for redemption prior to maturity. In the event any payment date is a Saturday, Sunday, or other nonbusiness day, the amount due will be payable (without additional interest) on the next succeeding business day.

2.2. The Notes are subject to all taxes imposed under the Internal Revenue Code of 1954. The Notes are exempt from all taxation now or hereafter imposed on the obligation or interest thereof by any State, any possession of the United States, or any local taxing

authority, except as provided in 31 U.S.C. 3124.

2.3. The Notes will be acceptable to secure deposits of Federal Public monies. They will not be acceptable in payment of Federal taxes.

2.4. The Notes will be issued only in book-entry form in denominations of \$1,000, \$5,000, \$10,000, \$100,000, and \$1,000,000, and in multiples of those amounts. They will not be issued in registered definitive or in bearer form.

2.5. The Department of the Treasury's general regulations governing United States securities, i.e., Department of the Treasury Circular No. 300, current revision (31 CFR Part 306), as to the extent applicable to marketable securities issued in book-entry form, and the regulations governing book-entry Treasury Bonds, Notes, and Bills, as adopted and published as a final rule to govern securities held in the TREASURY DIRECT Book-Entry Securities System in 51 FR 18260, *et seq.* (May 16, 1986), apply to the Notes offered in this circular.

### 3. Sale Procedures

3.1. Tenders will be received at Federal Reserve Banks and Branches and at the Bureau of the Public Debt, Washington, DC 20239, prior to 1:00 p.m., Eastern Standard time, Tuesday, November 25, 1986. Noncompetitive tenders as defined below will be considered timely if postmarked no later than Monday, November 24, 1986, and received no later than Wednesday, December 3, 1986.

3.2. The par amount of Notes Bid for must be stated on each tender. The minimum bid is \$1,000, and larger bids must be in multiples of that amount. Competitive tenders must also show the yield desired, expressed in terms of an annual yield with two decimals, e.g., 7.10%. Fractions may not be used. Noncompetitive tenders must show the term "noncompetitive" on the tender form in lieu of a specified yield.

3.3. A single bidder, as defined in Treasury's single bidder guidelines, shall not submit noncompetitive tenders totaling more than \$1,000,000. A noncompetitive bidder may not have entered into an agreement, nor make an agreement to purchase or sell or otherwise dispose of any noncompetitive awards of this issue prior to the deadline for receipt of tenders.

3.4. Commercial banks, which for this purpose are defined as banks accepting demand deposits, and primary dealers, which for this purpose are defined as dealers who make primary markets in Government securities and are on the list of reporting dealers published by the

Federal Reserve Bank of New York, may submit tenders for accounts of customers if the names of the customers and the amount for each customer are furnished. Others are permitted to submit tenders only for their own account.

3.5. Tenders for their own account will be received without deposit from commercial banks and other banking institutions; primary dealers, as defined above; Federally-insured savings and loan associations; States, and their political subdivisions or instrumentalities; public pension and retirement and other public funds; international organizations in which the United States holds membership; foreign central banks and foreign states; Federal Reserve Banks; and Government accounts. Tenders from all others must be accompanied by full payment for the amount of Notes applied for, or by a guarantee from a commercial bank or a primary dealer of 5 percent of the par amount applied for.

3.6. Immediately after the deadline for receipt of tenders, tenders will be opened, followed by a public announcement of the amount and yield range of accepted bids. Subject to the reservations expressed in Section 4, noncompetitive tenders will be accepted in full, and then competitive tenders will be accepted, starting with those at the lowest yields, through successively higher yields to the extent required to attain the amount offered. Tenders at the highest accepted yield will be prorated if necessary. After the determination is made as to which tenders are accepted, an interest rate will be established, at a  $\frac{1}{8}$  of one percent increment, which results in an equivalent average accepted price close to 100.000 and a lowest accepted price above the original issue discount limit of 98.750. That stated rate of interest will be paid on all of the Notes. Based on such interest rate, the price on each competitive tender allotted will be determined and each successful competitive bidder will be required to pay the price equivalent to the yield bid. Those submitting noncompetitive tenders will pay the price equivalent to the weighted average yield of accepted competitive tenders. Price calculations will be carried to three decimal places on the basis of price per hundred, e.g., 99.923, and the determinations of the Secretary of the Treasury shall be final. If the amount of noncompetitive tenders received would absorb all or most of the offering, competitive tenders will be accepted in an amount sufficient to provide a fair determination of the yield. Tenders received from Government accounts and Federal Reserve Banks

will be accepted at the price equivalent to the weighted average yield of accepted competitive tenders.

3.7. Competitive bidders will be advised of the acceptance of their bids. Those submitting noncompetitive tenders will be notified only if the tender is not accepted in full, or when the price at the average yield is over par.

### 4. Reservations

4.1. The Secretary of the Treasury expressly reserves the right to accept or reject any or all tenders in whole or in part, to allot more or less than the amount of Notes specified in Section 1, and to make different percentage allotments to various classes of applicants when the Secretary considers it in the public interest. The Secretary's action under this Section is final.

### 5. Payment and Delivery

5.1. Settlement for the Notes allotted must be made at the Federal Reserve Bank or Branch or at the Bureau of the Public Debt, wherever the tender was submitted. Settlement on Notes allotted to institutional investors and to others whose tenders are accompanied by a guarantee as provided in Section 3.5, must be made or completed on or before Wednesday, December 3, 1986. Payment in full must accompany tenders submitted by all other investors. Payment must be in cash; in other funds immediately available to the Treasury; in Treasury bills, notes, or bonds maturing on or before the settlement date but which are not overdue as defined in the general regulations governing United States securities; or by check drawn to the order of the institution to which the tender was submitted, which must be received from institutional investors no later than Monday, December 1, 1986. In addition, Treasury Tax and Loan Note Option Depositories may make payment for the Notes allotted for their own accounts and for accounts of customers by credit to their Treasury Tax and Loan Note Accounts on or before Wednesday, December 3, 1986. When payment has been submitted with the tender and the purchase price of the Notes allotted is over par, settlement for the premium must be completed timely, as specified above. When payment has been submitted with the tender and the purchase price is under par, the discount will be remitted to the bidder.

5.2. In every case where full payment has not been completed on time, an amount of up to 5 percent of the par amount of Notes allotted shall, at the discretion of the Secretary of the

Treasury, be forfeited to the United States.

5.3. Registered definitive securities tendered in payment for the Notes allotted and to be held in TREASURY DIRECT are not required to be assigned if the inscription on the registered definitive security is identical to the registration of the note being purchased. In any such case, the tender form used to place the Notes allotted in TREASURY DIRECT must be completed to show all the information required thereon, or the TREASURY DIRECT account number previously obtained.

#### 6. General Provisions

6.1. As fiscal agents of the United States, Federal Reserve Banks are authorized, as directed by the Secretary of the Treasury, to receive tenders, to make allotments, to issue such notices as may be necessary, to receive payment for, and to issue, maintain, service, and make payment on the Notes.

6.2. The Secretary of the Treasury may at any time supplement or amend provisions of this circular if such supplements or amendments do not adversely affect existing rights of holders of the Notes. Public announcement of such changes will be promptly provided.

6.3. The Notes issued under this circular shall be obligations of the United States, and, therefore, the faith of the United States Government is pledged to pay, in legal tender, principal and interest on the Notes.

Gerald Murphy,

*Fiscal Assistant Secretary.*

[FR Doc. 86-26636 Filed 11-21-86; 2:26 am]

BILLING CODE 4810-40-M

#### Fiscal Service

#### Treasury Current Value of Funds Rate

AGENCY: Financial Management Service.

**ACTION:** Notice of rate for use in Federal debt collection and discount evaluation.

**SUMMARY:** Pursuant to section 11 of the Debt Collection Act of 1982 (31 U.S.C. 3717), the Secretary of the Treasury is responsible for computing and publishing the percentage rate to be used in assessing interest charges for outstanding debts on claims owed the Government. Treasury's Cash Management Regulations (1 TFM 6-8000) also prescribe use of this rate by agencies as a comparison point in evaluating the cost-effectiveness of a cash discount. Notice is hereby given that the applicable rate is 7% for calendar year 1987.

**DATES:** The rate will be in effect for the period beginning on January 1, 1987 and ending on December 31, 1987.

**FOR FURTHER INFORMATION CONTACT:** Inquiries should be directed to the Cash Management Division (Agency Programs Branch), Financial Management Service, Department of the Treasury, Treasury Annex No. 1, PB-711, Washington, DC 20226 (Telephone: 202/634-5131).

**SUPPLEMENTARY INFORMATION:** The rate reflects the current value of funds to the Treasury for use in connection with Federal cash management systems and is based on investment rates set for purposes of Pub. L. 95-147, 91 Stat. 1227. Computed each year by averaging investment rates for the 12-month period ending every September 30 for applicability effective January 1, the rate is subject to quarterly revisions if the annual average, on the moving basis, changes by 2 per centum. The rate in effect for calendar year 1987 reflects the average investment rates for the 12-month period ended September 30, 1986.

Dated: November 5, 1986.

Russell D. Morris,

*Assistant Commissioner, Federal Finance.*

[FR Doc. 86-26474 Filed 11-24-86; 8:45 am]

BILLING CODE 4810-35-M

[Dept. Circ. 570, 1986 Rev., Supp. No. 5]

#### Surety Companies Acceptable on Federal Bonds: South Carolina Insurance Co.

The Certificate of Authority as an acceptable surety on Federal bonds is hereby renewed for the following Company under sections 9304 to 9308, Title 31, of the United States Code effective July 1, 1986. Federal bond-approving officers should annotate their reference copies of the Treasury Circular 570, 1986 Revision, on page 23950 to reflect this addition:

*South Carolina Insurance Company.*

Business address: P.O. Box 1, Columbia, SC 29202. Underwriting limitation: \$3,791,000. Surety licenses: All except AS, GU, HI, ME, NH, PR, RI, VT, VI. Incorporated in: South Carolina. Federal Process Agents<sup>a</sup>.

Certificates of Authority expire on June 30 each year, unless revoked prior to the date. The Certificates are subject to subsequent annual renewal so long as the companies remain qualified (31 CFR Part 223). A list of qualified companies is published annually as of July 1 in Department Circular 570, with details as to Underwriting Limitations, areas in which licensed to transact surety business and other information.

Copies of the Circular may be obtained from the Department of the Treasury, Financial Management Service, Finance Division, Surety Bond Branch, Washington, DC 20226, telephone (202) 634-2298.

Dated: November 18, 1986.

Mitchell A. Levine,

*Assistant Commissioner, Comptroller, Financial Management Service.*

[FR Doc. 86-26473 Filed 11-24-86; 8:45 am]

BILLING CODE 4810-35-M

# Sunshine Act Meetings

Federal Register

Vol. 51, No. 227

Tuesday, November 25, 1986

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

## FEDERAL COMMUNICATIONS COMMISSION FCC To Hold Open Commission Meeting, Tuesday, November 25, 1986

November 18, 1986.

The Federal Communications Commission will hold an Open Meeting on the subjects listed below on Tuesday, November 25, 1986, which is scheduled to commence at 9:30 a.m., in Room 856, at 1919 M Street, NW, Washington, DC.

### Agenda, Item No., and Subject

**General—1—Title:** Establishment of a spectrum utilization policy for the fixed and mobile services' use of certain bands between 947 MHz and 40 GHz. **Summary:** The commission will consider whether to adopt a *Third Report and Order* which would address issues raised in the *Second Notice of Proposed Rule Making (2nd NPRM)* in General Docket 82-334. The item addresses eligibility, channeling plans, path length standards and a number of other issues for certain microwave frequency bands.

**General—2—Title:** Amendment of Parts 1, 21, 74 and 94 of the Commission's Rules to establish service and technical rules for Government and non-Government fixed service usage of the frequency bands 932-935 MHz and 941-944 MHz. **Summary:** In this proceeding, the Commission considers whether to adopt proposed service and technical rules for the 900 MHz Government and non-Government fixed service.

**General—3—Title:** Amendment of § 19.735-202 of the Commission's Rules. **Summary:** The Commission will consider amending Part 19 of the Commission's Rules which govern employee responsibility and conduct in order to clarify any ambiguity surrounding the application of the restrictions on the acceptance of gifts, entertainment, food and refreshments.

**General—4—Title:** Report and Order on the appropriate regulatory classification for subscription video services. **Summary:** The Commission will consider whether to modify the relevant criteria for determining if a subscription service like STV should be considered "broadcasting" under the Communications Act.

**Private Radio—1—Title:** Preparation for an International Telecommunication Union World Administrative Radio Conference for the Mobile Services. **Summary:** The Commission will consider whether to adopt a Report and Order which presents recommendations to the Department of

State for U.S. proposals to be put forth at the Mobile WARC.

**Common Carrier—1—Title:** In the matter of Petitions for Waiver of Various sections of Part 69 of the Commission's Rules, filed by the New York Telephone Company and the New England Telephone and Telegraph Company; New York Telephone Company Tariff F.C.C. No. 40, Transmittal No. 775; New England Telephone and Telegraph Company, Tariff F.C.C. No. 41, Transmittal No. 819. **Summary:** The FCC will consider whether to grant petitions for waiver of its access charge rules in order to permit the New York Telephone and Telegraph Company and the New England Telephone and Telegraph Company to implement an alternative access charge plan.

**Common Carrier—2—Title:** Furnishing of Customer Premises Equipment by the Bell Operating Companies and the Independent Telephone Companies, CC Docket No. 86-79. **Summary:** The Commission will meet to consider whether to grant the Bell Operating Companies structural relief for their provision of customer premises equipment.

**Common Carrier—3—Title:** Reconsideration of the Commission's order establishing guidelines for its consideration of local exchange carriers petitions for waiver of Part 69 rules concerning the recovery of common line revenue requirement. **Summary:** The Commission will meet to consider petitions filed by various parties seeking reconsideration of its April 1986 Order denying petitions seeking waiver of various sections of Part 69 relating to local exchange carrier recovery of interstate common line revenue requirement.

**Mass Media—1—Title:** Petition for Declaratory Ruling regarding permissible uses of Direct Broadcast Satellite service facilities, filed by United States Satellite Broadcasting Company, Inc. **Summary:** The Commission considers whether to permit operators in the DBS service to provide data, voice communication, and other non-video services as an interim measure in the event the DBS market develops more slowly or less fully than earlier anticipated.

This meeting may be continued the following work day to allow the Commission to complete appropriate action.

Additional information concerning this meeting may be obtained from Maureen Peratino.

Issued: November 18, 1986.  
Federal Communications Commission.  
William J. Tricarico,  
Secretary.

[FR Doc. 86-26629 Filed 11-21-86; 12:23 pm]  
BILLING CODE 6712-01-M

## FEDERAL DEPOSIT INSURANCE CORPORATION

### Notice of Changes in Subject Matter of Agency Meeting

Pursuant to the provisions of subsection (e)(2) of the "Government in the Sunshine Act" (5 U.S.C. 552b(e)(2)), notice is hereby given that at its open meeting held at 2:00 p.m. on Tuesday, November 18, 1986, the Corporation's Board of Directors determined, on motion of Chairman L. William Seidman, seconded by Director C.C. Hope, Jr. (Appointive), concurred in by Director Robert L. Clarke (Comptroller of the Currency), that Corporation business required the addition to the agenda for consideration at the meeting, on less than seven days' notice to the public, of the following matters:

Application of Barnett Bank of Southwest Florida, Sarasota, Florida, a noninsured State bank, in organization, for Federal deposit insurance, for consent to merge, under its charter and title, with Barnett Bank of Southwest Florida, National Association, Englewood, Florida, and for consent to establish twelve existing branches and one approved, but unopened, branch of Barnett Bank of Southwest Florida, National Association as branches of Barnett Bank of Southwest Florida.

Application of the North Fork Bank and Trust Company, Mattituck, New York, an insured State nonmember bank, for consent to purchase certain assets of and assume the liability to pay certain deposits made in the 116 East Main Street, Patchogue, New York, branch office of Bayside Federal Savings and Loan Association, Bayside, New York, a non-FDIC-insured institution, and for consent to establish that office as a branch of the North Fork Bank and Trust Company.

Application of The First National Bank of Salida, Salida, Colorado, for consent to transfer certain assets to The Thatcher Bank, Federal Savings Bank, Salida, Colorado, a non-FDIC-insured institution, in organization, in consideration of the assumption of the liabilities of First National Bank of Salida.

Application of Apple Bank for Savings, New York (Manhattan), New York, for consent to merge, under its charter and title, with Eastern Savings Bank, New York, New York, an insured mutual savings bank, and for consent to establish the eight offices of Eastern Savings Bank as branches of the resultant bank.

By the same majority vote, the Board further determined that no earlier notice of the changes in the subject matter of the meeting was practicable.

Dated: November 19, 1986.

Federal Deposit Insurance Corporation.  
**Hoyle L. Robinson,**  
*Executive Secretary.*  
 [FR Doc. 86-26627 Filed 11-21-86; 8:45 am]  
 BILLING CODE 6714-01-M

# **FEDERAL DEPOSIT INSURANCE CORPORATION**

## **Notice of Change in Subject Matter of Agency Meeting**

Pursuant to the provisions of subsection (e)(2) of the "Government in the Sunshine Act" (5 U.S.C. 552b(e)(2)), notice is hereby given that at its closed meeting held at 2:30 p.m. on Tuesday, November 18, 1986, the Corporation's Board of Directors determined, on motion of Chairman L. William Seidman, seconded by Director C.C. Hope, Jr. (Appointive), concurred in by Director Robert L. Clarke (Comptroller of the Currency), that Corporation business required the addition to the agenda for consideration at the meeting, on less than seven days' notice to the public, of a recommendation regarding the Corporation's assistance agreement with an insured bank.

The Board further determined, by the same majority vote, that no earlier notice of the change in the subject matter of the meeting was practicable; that the public interest did not require consideration of the matter in a meeting open to public observation; and that the matter could be considered in a closed meeting by authority of subsections (c)(4), (c)(8), (c)(9)(A)(ii), and (c)(9)(B) of the "Government in the Sunshine Act" (5 U.S.C. 552b(c)(4), (c)(8) (c)(9)(A)(ii), and (c)(9)(B)).

Dated: November 20, 1986.

Federal Deposit Insurance Corporation.  
**Hoyle L. Robinson,**  
*Executive Secretary.*  
 [FR Doc. 86-26628 Filed 11-24-86; 12:22 am]  
 BILLING CODE 6714-01-M

**NATIONAL COUNCIL ON THE HANDICAPPED SUMMARY:** This notice sets forth the schedule and proposed agenda of a forthcoming meeting of the National Council on the Handicapped. This notice also describes the functions of the Council. Notice of this meeting is required under section 522(b)(10) of the "Government in Sunshine Act" (Pub. L. 94-409).

### **DATES:**

Dec. 1, 1986, 1:30 p.m. to 5:30 p.m.  
 Dec. 2, 1986, 8:30 a.m. to 5:00 p.m.  
 Dec. 3, 1986, 9:00 a.m. to 4:00 p.m.

### **FOR FURTHER INFORMATION CONTACT:**

Andrea Farbman, National Council on the Handicapped, 800 Independence Avenue, SW., Washington, DC 20591, (202) 267-3846, TDD: (202) 267-3232.

The National Council on the Handicapped is an independent Federal agency comprised of 15 members appointed by the President of the United States and confirmed by the Senate. Established by the 95th Congress in Title IV of the Rehabilitation Act of 1973 (as amended by the Pub. L. No. 95-602 in 1978), the Council was initially an advisory board within the Department of Education. In 1984, however, the Council was transformed into an independent agency by the Rehabilitation Act Amendments of 1984 (Pub. L. No. 98-221).

The Council is charged with reviewing all laws, programs, and policies of the Federal Government affecting disabled individuals and making such recommendations as it deems necessary to the President, the Congress, the Secretary of the Department of Education, the Commissioner of the Rehabilitation Services Administration, and the Director of the National Institute on Disability and Rehabilitation Research (NIDRR).

The meeting of the Council shall be

open to the Public. The proposed agenda includes:

- Reports from Chairperson and Executive Director
- Discussion of Harris Poll on Disability
- Briefing on President's Committee on Employment of the Handicapped
- Legislative Update
- Workplan Update and Toward Independence Followup
- Reports from the Research, Adult Services, Children's Services, and Public Affairs Committees
- NCH's discussion of unfinished and new business

Records shall be kept of all Council proceedings and shall be available after the meeting for public inspection at the National Council on the Handicapped.

Signed at Washington, DC on November 20, 1986.

**Lex Frieden,**  
*Executive Director.*

[FR Doc. 86-26638 Filed 11-21-86; 2:47 pm]  
 BILLING CODE 9539-39-M

## **EQUAL EMPLOYMENT OPPORTUNITY COMMISSION**

**AGENCY HOLDING THE MEETING:** Equal Employment Opportunity Commission.

**"FEDERAL REGISTER" CITATION OF PREVIOUS ANNOUNCEMENT:** Volume 51, No. 220, FR #41460, dated, Friday, November 14, 1986.

**PREVIOUSLY ANNOUNCED TIME AND DATE OF MEETING:** 9:30 AM (Eastern Time) Tuesday, November 25, 1986.

**CORRECTION:** This corrects Item #3 of the Closed Agenda to read as follows: "Proposed Conciliation Agreements"

**CONTACT PERSON FOR MORE INFORMATION:** Cynthia C. Matthews, Executive Officer, Executive Secretariat, (202) 634-6748.

Dated: November 21, 1986.

**Cynthia C. Matthews,**  
*Executive Officer.*

This Notice Issued November 21, 1986.  
 [FR Doc. 86-26653 Filed 11-21-86; 3:29 pm]  
 BILLING CODE 6750-06-M

# Corrections

Federal Register

Vol. 51, No. 227

Tuesday, November 25, 1986

This section of the FEDERAL REGISTER contains editorial corrections of previously published Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency-prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

## ENVIRONMENTAL PROTECTION AGENCY

(OPTS-59788; FRL-3095-1)

### Styrene, Acrylic Modified Alkyd; Certain Chemical Premanufacture Notice

#### Correction

In notice document 86-23105 appearing on page 36598 in the issue of Tuesday, October 14, 1986, make the following corrections in the **SUMMARY**:

1. In the sixth line, "davs" should read "days".
2. In the twelfth line, "211722" should read "21722".
3. In the thirteenth line, the date should read "November 11, 1984".

BILLING CODE 1505-01-D

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Office of the Secretary

#### 1987 Cost-of-Living Increase and Other Determinations

#### Correction

In notice document 86-25002 beginning on page 40256 in the issue of Wednesday, November 5, 1986, make the following corrections:

On page 40258, second column, eleventh line, "1985" should read "1984".

On the same page, third column, first complete paragraph, fourth line, insert "in" before "1987".

On page 40259, second column—  
1 In paragraph (c), "\$396" should read "\$571", and in paragraph (d), remove "\$396 through".

On the same page, third column, fourth line, insert "1985" before "has".

BILLING CODE 1505-01-D

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

#### 21 CFR Parts 182 and 184

[Docket No. 81N-0368]

#### Hydrogen Peroxide; Affirmation of GRAS Status With Specific Limitations

#### Correction

In rule document 86-17036 beginning on page 27169 in the issue of Wednesday, July 30, 1986, make the following correction:

On page 27170, in the third column, in the eleventh line from the bottom of paragraph 5., "63-331" should read "63-231".

BILLING CODE 1505-01-D

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

#### 21 CFR Part 344

[Docket No. 77N-334S]

#### Topical Otic Drug Products for Over-the-Counter Human Use; Tentative Final Monograph To Include Drug Products for the Prevention of Swimmer's Ear and for the Drying of Water-Clogged Ears

#### Correction

In proposed rule document 86-17041 beginning on page 27366 in the issue of Wednesday, July 30, 1986, make the following corrections:

On page 27371, in the third column, in paragraph 4., in the twentieth line, insert "(d)," between "(c)," and "(e)".

#### § 344.50 [Corrected]

On page 27373, in the first column, in the section heading for § 344.50, in the first line, insert "aid" after "removal".

BILLING CODE 1505-01-D

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

#### 21 CFR Part 358

[Docket No. 82N-0214]

#### Dandruff, Seborrheic Dermatitis, and Psoriasis Drug Products for Over-the-Counter Human Use; Tentative Final Monograph

#### Correction

In proposed rule document 86-17040 beginning on page 27346 in the issue of Wednesday, July 30, 1986, make the following corrections:

#### § 358.703 [Corrected]

On page 27359, in the first column, in § 358.703(a), in the first line, "medical" should read "medicinal".

#### § 358.710 [Corrected]

Also on page 27359, in the second column, in the section heading for § 358.710, in the second line, "or" should read "of".

#### § 358.752 [Corrected]

On page 27360, in the second column, in § 358.752(e), in the second line, "wold" should read "word".

BILLING CODE 1505-01-D

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

#### Allergenic Products Advisory Committee; Renewal

#### Correction

In notice document 86-17042 beginning on page 27255 in the issue of Wednesday, July 30, 1986, make the following correction:

On page 27256, in the first column, in the first line, "1981" should read "1986".

BILLING CODE 1505-01-D

**DEPARTMENT OF HEALTH AND  
HUMAN SERVICES**

**Food and Drug Administration**

[Docket No. 85N-0583]

**Low Back Referral Criteria Panel;  
Meeting**

*Correction*

In notice document 86-17044 appearing on page 27256 in the issue of Wednesday, July 30, 1986, make the following correction:

In the third column, in the "Dated" line, "1981" should read "1986".

BILLING CODE 1505-01-D

**NUCLEAR REGULATORY  
COMMISSION**

[Docket No. 50-029]

**Yankee Atomic Electric Co. (Yankee  
Nuclear Power Station); Exemption**

*Correction*

In notice document 86-22839 beginning on page 36077 in the issue of Wednesday, October 8, 1986, make the following correction:

On page 36081, in the first column, fourth complete paragraph, second line, "20" should read "2".

BILLING CODE 1505-01-D



**Federal Register**

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**Tuesday  
November 25, 1986**

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**Part II**

**Department of Labor**

**Occupational Safety and Health  
Administration**

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**29 CFR Part 1926**

**Safety Standards for Scaffolds Used in  
the Construction Industry; Notice of  
Proposed Rulemaking**

**DEPARTMENT OF LABOR****Occupational Safety and Health Administration****29 CFR Part 1926**

[Docket No. S-205]

**Safety Standards for Scaffolds Used in the Construction Industry****AGENCY:** Occupational Safety and Health Administration, Labor.**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Occupational Safety and Health Administration (OSHA) proposes to revise the construction industry safety standards addressing scaffolds. The standards proposed for revision regulate the design, construction, and use of all scaffolds in construction.

The proposed revisions are intended to correct problems related to the existing standards. More specifically, the existing standards regulate, in detail, the specific methods to be used to reduce employee exposure to the hazards of slipping or falling while working on scaffolds. The proposed revisions would continue to address employee exposure, but would do so using performance criteria, where possible, rather than specifications standards. This approach is another step in OSHA's plan to review its safety standards and to revise them as necessary to provide safer working conditions without imposing unnecessarily burdensome requirements. This proposal is being issued after appropriate consultation with the Advisory Committee on Construction Safety and Health (ACCSH).

**DATES:** Comments on this proposed rulemaking must be postmarked by February 23, 1987. Hearing requests must be postmarked by February 23, 1987.

**ADDRESS:** Written comments and requests for hearing should be sent to the Docket Officer, Docket No. S-205, U.S. Department of Labor, Room N-3670, 200 Constitution Avenue, NW., Washington, DC 20210.

**FOR FURTHER INFORMATION CONTACT:** Mr. James Foster, Occupational Safety and Health Administration, U.S. Department of Labor, Room N-3637, 200 Constitution Avenue, NW., Washington, DC 20210, Telephone: (202) 523-8151.

**SUPPLEMENTARY INFORMATION:** The author of this proposed rulemaking is Roy F. Gurnham, Office of Construction and Civil Engineering Safety Standards,

Occupational Safety and Health Administration.

**I. Background**

The shortened forms listed below are used throughout this preamble to refer to the following sources: Advisory Committee on Construction Safety and Health—ACCSH or "the Committee"; American National Standards Institute Safety Requirements for Scaffolding, ANSI A10.8-1977 and current revisions—ANSI; OSHA's construction standards—Part 1926; OSHA's general industry standards—Part 1910; and exhibits in the rulemaking record—Example.

Congress amended the Contract Work Hours Standards Act (CWHSA) (40 U.S.C. 327 et seq.) in 1969 by adding a new Section 107 (40 U.S.C. 333) to provide employees in the construction industry with a safer work environment and to reduce the frequency and severity of construction accidents and injuries. The amendment, commonly known as the Construction Safety Act (CSA) (Pub. L. 91-54; August 9, 1969), significantly strengthened employee protection by providing occupational safety and health standards for employees of the building trades and construction industry working on Federally-financed or Federally-assisted construction projects. Accordingly, the Secretary of Labor issued Safety and Health Regulations for Construction in 29 CFR Part 1518 (36 FR 7340, April 17, 1971) pursuant to section 107 of the Contract Work Hours and Safety Standards Act.

The Occupational Safety and Health Act (the Act) (84 Stat. 1590; 29 U.S.C. 651 et seq.), was enacted by Congress in 1970 and authorized the Secretary of Labor to adopt established Federal standards issued under other statutes, including the Construction Safety Act, as occupational safety and health standards. Accordingly, the Secretary of Labor adopted the Construction Standards, which had been issued under the Construction Safety Act in 29 CFR Part 1518, in accordance with section 6(a) of the Act (36 FR 10466, May 29, 1971). The Safety and Health Regulations for Construction, were redesignated as Part 1926 later in 1971 (36 FR 25232, December 30, 1971). The standard titled "Ladders and Scaffolding," § 1926.450 through 1926.452, was adopted as an OSHA standard in Subpart L of Part 1926 as part of this process.

Various amendments were made to Subpart L during the first two years of the OSHA Act. The amendments revised scaffold provisions which addressed planking grades, wood pole scaffold

construction, overhead protection, bracket scaffold loading, and plank spans. Other substantive provisions concerning pump jack scaffolds, height of catch platforms, and guardrails were also added to Subpart L in 1972 (37 FR 25712, December 2, 1972).

As part of OSHA's continuing program of standards evaluation, and in response to public comments, a complete review of Subpart L was begun in 1977. Since that time, ACCSH has reviewed Subpart L five times, and transcripts of these meetings, including recommendations, have been submitted to the Assistant Secretary. The transcripts are part of the public record as Exhibit 4. The Committee's recommendations, and those of other interested parties, have been carefully analyzed in connection with the present rulemaking. Many of the changes in the proposed standard reflect the recommendations and suggestions of the Advisory Committee and interested persons. Relevant ACCSH comments are discussed below in the Summary and Explanation section. Committee discussions that were inconclusive or did not result in a specific recommendation have also been considered, but are not discussed in this preamble.

After reviewing and evaluating the provisions of Subpart L, OSHA believes that certain provisions in the existing standards are redundant or ambiguous. The standard omits coverage of some types of scaffolds used in construction (e.g., catenary scaffolds) and contains rules applying only to particular types of scaffolds which OSHA believes should apply to all scaffold types (e.g., existing paragraph § 1926.451(b)(11) requiring tight spacing of planks). The proposed language eliminates what OSHA considers to be unnecessary and redundant provisions in the current standards (e.g., the requirement for guardrails is stated 19 separate times in the existing standard). In addition, the proposal has been written in performance-oriented language. This proposal also incorporates directly the relevant provisions of the general industry standards (Part 1910) which have been determined by OSHA to be applicable to the construction industry.

For purposes of organization, the topic of ladders will be relocated from Subpart L to a revised Subpart X titled "Stairways and Ladders." These two subparts, along with a revised Subpart M, retitled "Fall Protection," constitute a package of interrelated standards which have been rewritten and reorganized to facilitate treatment of the individual subjects. OSHA intends to coordinate

the rulemaking activities for these three subparts, and hopes to make the final rules for all three subparts effective at the same time.

OSHA believes that the clarified and reformatted language of the proposal will help employers to understand the requirements of Subpart L, and will improve safety by minimizing subjective interpretations of the provisions. By minimizing, if not eliminating, the interpretations needed to understand the requirements of Subpart L, OSHA intends to provide fair and equal notice to all employers of the rules for scaffold safety.

This project is also being coordinated with the project for the revision of related general industry standards in 29 CFR Part 1910, Subpart D, Walking/Working Surfaces. Wherever possible, the 1910 and 1926 proposals use the same language to address similar hazards in order to promote consistency between the two sets of standards.

## II. Hazards Involved

Accidents resulting in injuries and fatalities continue to occur on scaffolds despite the promulgation of the OSHA Construction Standards in 1971. Examination of available data indicates that these accidents appear to be primarily the result of non-compliance with existing OSHA standards, and not primarily because the current standards improperly address the hazards involved in scaffold work. However, after review of accident data compiled by the Bureau of Labor Statistics (Exs. 1 and 2) and OSHA (Ex. 3), and after review of compliance problems and public comments received since 1972, OSHA believes that the present standard needs updating to clarify the requirements of currently ambiguous and confusing provisions, and to eliminate provisions which are not feasible.

Precise scaffold accident data for the entire construction industry are not available. Although the number of construction scaffold accidents can be estimated for a given period of time, the ratio of accidents to the amount of employee exposure or to the type of scaffolds used cannot be readily determined. In addition, a comparison of accident rates for the various types of scaffolds or the trades using scaffolds is not possible because no information is available on the frequency of scaffold use according to type of scaffold or trade group involved. However, based upon the limited data which have been compiled (Ex. 1), the following statistics have been developed relating to the cause of injuries (not fatalities):

a. Seventy-two percent of the injured workers attributed the accident to either the planking or support giving way, slipping, or being struck by a falling object. Plank slippage was the most commonly cited cause.

b. About 70 percent of the workers learned of the safety requirements for installing work platforms, assembling scaffolds, and inspecting scaffolds, through on-the-job training. Approximately 25 percent had no training in these areas.

c. Only 33 percent of the scaffolds were equipped with a guardrail.

The following are examples of the types of accidents that injure and kill employees working on scaffolds.

• *October 7, 1975: Fatality.* While working on a scaffold and lifting a sheet of corrugated roofing over his head, an employee fell 13 feet to his death. The scaffold was loosely planked, permitting the employee to fall through the scaffold platform (Ex. 3:15). Observance of existing provision § 1926.451(a)(4) or the clarified language of proposed paragraph § 1926.451(b)(1), might have prevented this death by providing a fully decked platform with no openings large enough for the worker to fall through.

• *November 23, 1976: Fatality.* Two employees were working on a scaffold platform which had a four foot overhang at each end. During work operations one employee stepped out onto the overhang and the platform tilted up. That employee fell 250 feet to his death (Ex. 3:16). He was wearing a body belt but was not tied off. Observance of existing paragraph § 1926.451(a)(14), or proposed paragraph § 1926.451(b)(6), specifying maximum overhang might have prevented this death. In addition, observance of proposed paragraph § 1926.451(e)(1) requiring body belt protection also might have prevented this death. There is no specific existing provision requiring body belt protection.

• *May 31, 1977: Fatality.* An employee was entering a silo to remove formwork. He entered the silo by dropping through an access hole at the top of the tank to the scaffold platform seven feet below. The platform broke when he landed on it, and he fell 100 feet to his death (Ex. 3:23). Observance of existing paragraph § 1926.451(a)(13), or proposed paragraph § 1926.451(c)(1), requiring proper means of access might have prevented this death.

• *April 16, 1975: One fatality, two injuries.* Four employees were working on a 50-foot high scaffold when a 35-40 mile an hour gust of wind toppled the scaffold. The scaffold was not adequately pinned or tied (Ex. 3:51). Observance of proposed paragraph

§ 1926.451(a)(1) requiring wind load design might have prevented this accident. There is no specific provision in the existing standard on this issue. Observance of existing provision § 1926.451(d)(7), or proposed paragraph § 1926.451(b)(13), requiring scaffold ties or guying, also might have prevented this accident. Observance of existing paragraph § 1926.451(d)(6), or proposed paragraph § 1926.452(c)(4), requiring locking pins on fabricated frame scaffolds might have prevented this death and these injuries.

Although the above examples suggest that observance of existing provisions might have prevented the accidents, the examples also show that deficiencies in coverage exist. OSHA believes that the proposed provisions would remove the deficiencies and provide clearer, easier to understand requirements.

For a further discussion of accident rates and significance of risk, see IV. Preliminary Regulatory Impact Assessment and Regulatory Flexibility Analysis.

## III. Summary and Explanation of Proposal

The proposed standard is intended to eliminate ambiguities, unnecessary provisions, and redundancies found in the existing standard. It will increase employer innovation by using performance-oriented language to replace specification-type language which is unduly restrictive. This will allow the employer to have more alternative ways to comply with provisions than are allowed by the existing standard. In addition, it would provide a uniform set of rules for all similar types of scaffolds by changing certain specific requirements into general requirements that address common hazards, and it would provide additional requirements where deficiencies presently exist.

All incorporation by reference of national consensus standards and other materials are deleted in the proposed standard as the text of applicable requirements from those standards are proposed for inclusion in the body of the standard. This will assist employers in determining what is required by a provision without having to refer to documents outside Part 1926.

### Subpart L—Scaffolds

The title of Subpart L is proposed to be changed from "Ladders and Scaffolding" to "Scaffolds" in keeping with OSHA's decision to relocate the subject of ladders to the proposed revision of Subpart X titled "Stairways and Ladders." The word "scaffold" is

used in the title and throughout the proposed standard in lieu of the longer word "scaffolding." This change does not affect the scope of the scaffold standard.

*Section 1926.450 Scope, application and definitions applicable to this subpart.*

Proposed paragraph § 1926.450(a) outlines the scope and application of the entire Subpart L. The proposal would apply to all scaffolds used in construction, alteration, repair (including painting and decorating), and demolition workplaces. The term "scaffold" is defined to mean any temporary elevated platform and its supporting structure used for supporting employees or materials, or both, except crane or derrick suspended personnel platforms. The intent is to cover the hazards associated with scaffold work regardless of the style, purpose, or name of the scaffold. Crane or derrick suspended personnel platforms would be covered in Subpart N of this part. For the purposes of this Subpart, scaffolds are divided into two categories: "supported scaffolds" and "suspension scaffolds." The standards in Subpart L are intended to apply to both types of scaffolds, except where a provision is expressly limited to either suspension or supported scaffolds. Scaffolds which have a combination of supported and suspended components would be covered by both sets of standards.

Proposed paragraph § 1926.450(b) lists and defines all major words used in Subpart L. Many of the definitions are the same as those in the existing standard, although some have been reworded for uniformity or clarity. One significant change made to all definitions defining the types of scaffolds is the inclusion of the words "supported scaffold" and "suspension scaffold." This change would clarify the application of the general rules contained in § 1926.451. Another significant change is the deletion of limitations and requirements from the existing definitions. For example, the existing definition for "bricklayer's square scaffolds" is "a scaffold composed of framed wood squares which support a platform, limited to light and medium duty." The words after "platform" are proposed to be deleted from the definition because they have a substantive limitation on the use of the scaffold, rather than serving to define the type of scaffold. Similarly, the existing definition for "coupler" is "a device for locking together the component parts of a tubular metal scaffold. (The material used for the coupler shall be of a structural type,

such as a drop-forged steel, malleable iron, or structural grade aluminum.)" The limitations in these definitions are substantive rather than definitional, and are more properly located in the standard's provisions.

The following are the major words which would be changed or added to the definitions paragraph in the proposed standard:

"Adjustable suspension scaffold." This is a new definition and is used in the proposal to clarify which types of suspension scaffolds are adjustable. As any type of suspended scaffold can be erected at various heights and is, therefore, adjustable, this definition explains that the term applies only to those types of scaffolds which have hoists located such that the hoist can be operated by employees on the scaffold. Hoists are defined as mechanical devices used to raise or lower a suspended scaffold.

"Body belt/harness system (personal fall arrest system)." This term replaces the existing term "safety belt" to reflect current industry use of the new terms body belt system and body harness system (also known as personal fall arrest systems).

"Catenary scaffold." This type of scaffold is not specifically addressed in the existing rules but is covered in proposed paragraph § 1926.452(r). The definition is essentially the same definition as is currently used by ANSI.

"Cleat." The existing definition applies only to ladders. The proposed definition defines this word as it applies to scaffolds, i.e., a structural member used to prevent plank slippage and to provide footing on sloped surfaces such as crawling boards.

"Dropline." This is a fall protection system piece of equipment used for body belt support. It is not used to support the scaffold.

"Equivalent." This term is used in the proposal to allow alternative means of complying with the standards. The definition makes clear that the employer must demonstrate that all alternative means of compliance will provide an equal or greater degree of safety than that attained by using the method or item specified in the standard.

"Exposed power lines." This term is defined to mean electrical power lines which are accessible and not shielded, and is used in paragraph § 1926.451(d)(6), which limits the use of scaffolds near exposed power and distribution lines. The definition excludes extension cords and power tool cords from the rule.

"Fabricated decking and planking." The existing standard only addresses

solid sawn wood planking in many of its provisions. Since the market presently offers laminated wood platforms, metal decking, and decking made of other materials, as well as solid sawn wood planking, the standard has been drafted to include these items, and to officially sanction their use. The definition makes clear that both fabricated and natural products are addressed.

"Fabricated frame scaffold." This is the proposed name for the type of scaffold presently identified as "tubular welded frame scaffold." The current term is too restrictive in that the word "tubular" means round and "welded" implies metal components are involved. The rules in paragraph § 1926.452(c) are not dependent on such limitations. They address fabricated frames and related scaffold components whether the component parts are square or round, or made of metal, plastic, wood, or some other material.

"Failure." This word is used in performance-oriented paragraphs such as § 1926.451(a)(1) and § 1926.451(a)(3). Because the word can be interpreted to mean only breakage or a physical separation of component parts, the definition makes it clear that the load point where ultimate strength is exceeded also is considered to be failure. This is the point where structural members lose their ability to carry loads.

"Guardrail system." This term defines guardrails as vertical barriers erected to prevent employees from falling, and replaces the existing term "guardrail." The definition is changed as the existing definition describes a toprail, a midrail, and a stairrail, each of which has different performance criteria. The new definition makes it clear that the entire system, including toprail, midrail (or screen), and uprights, is covered when guardrails are addressed in paragraph § 1926.451(e). In addition, the definition distinguishes between Type I guardrails, those capable of providing adequate fall protection by themselves, and Type II guardrail systems, those which may be used on suspended platforms as edge delineators and to prevent misstepping, but which do not provide adequate fall protection by themselves. Body belt/harness systems must be worn when Type II guardrails are used on suspension scaffolds because of the reduced strength characteristics and lower toprail heights of Type II systems.

"Hoist." This definition clarifies that paragraphs relating to hoists, including paragraphs §§ 1926.451(b) (28), (29) and (30), apply only to the mechanisms used to elevate or lower suspension scaffolds,

and do not apply to other types of material hoists.

"Ladder stand." This is a term used in § 1926.451(c) and defines one kind of means-of-access which can be used with scaffolds.

"Lower levels." This is a new term and is used to describe the areas to which an employee could fall. The definition does not apply to the surface from which the employee could fall.

"Maximum intended load." This term replaces the existing terms "maximum rated load" and "workload." The proposed term defines more clearly the types of loads which are to be included when determining the maximum load. The word "rated" in the existing term makes it unclear, in light of the existing definition, as to whether or not the safety factor of four (existing rule § 1926.451(a)(7)) or six (existing rule § 1926.451(a)(2)) is to be incorporated into the determination of the maximum load. The proposed definition and proposed rule § 1926.451(a)(1) clearly indicate that the maximum intended load does not include either safety factor.

"Mechanically-powered hoists." This is a new term and would define hoists which are powered by other than human energy.

"Mobile scaffold." This proposed term replaces the existing term "manually-propelled mobile scaffold" because there are power drive units available to propel scaffolds, and the proposed standard addresses both types of drive systems.

"Multi-level suspended scaffold." The existing standard does not specifically address suspended scaffolds with more than one platform level. This term in the proposed standard identifies such scaffold arrangements.

"Multi-point adjustable suspension scaffold." This proposed term is included to clarify the coverage of paragraph § 1926.452(q). The existing standard addresses masons' adjustable multiple-point suspension scaffolds and stone setters' adjustable multiple-point suspension scaffolds separately, and does not specifically address other types of multiple-point scaffolds. The new term allows all such scaffolds to be addressed as a group.

"Open sides and ends." This proposed definition clarifies the application of paragraph § 1926.451(e)(1), which requires fall protection, by defining the hazard for which guarding would be required. The 14-inch dimension in the definition is consistent with the provisions of proposed paragraphs §§ 1926.451 (b)(4) and (c)(7). The 18-inch limit is consistent with the intent of § 1926.451(b)(4)(ii).

"Outrigger." This term, "outrigger beam," and "outrigger scaffold" are new definitions provided to explain the difference between these three similar terms.

"Overhand bricklaying operations." This activity is identified in paragraph § 1926.451(e)(1)(v) as having unique fall protection requirements. This definition clarifies the activities involved.

"Platform." This term is used to avoid stressing the use of a particular type of work surface, such as planking or planks. The existing standard uses such terms, and consequently is ambiguous as to the use of other types of platforms such as decks or other fabricated materials or units.

"Platform unit." The existing standard uses the term "planks" in many of its provisions. This term commonly means "solid sawn wood." However, some manufacturers of fabricated planks use this term to describe their product. Furthermore, there are other types of structural members and materials which can be used to build platforms and walkways. Therefore, the term "platform unit" is needed to clarify that the standards apply to all types of platforms and walkways, not just those made of solid sawn wood.

"Pump jack scaffold." This is a new term required because this type of scaffold is not defined in the existing standard.

"Self-contained adjustable scaffolds." This type of scaffold, not specifically addressed in the existing standard, is covered by the general rules for both supported scaffolds and suspended scaffolds, depending on its construction. It is an adjustable suspension scaffold equipped with its own support frame and moveable platform.

"Step, platform, and trestle ladder scaffolds." This type of scaffold is not specifically addressed in the existing rules. The proposal addresses this type of scaffold in paragraph § 1926.452(n).

"Supported scaffold" and "Suspension scaffold." These terms are used to define the two basic types of scaffolds. These terms clarify the application of the general rules in paragraph § 1926.451.

"Unstable objects." This term is used to describe those items which shall not be used as scaffold base supports because they do not properly distribute the loads imposed on them. Such supports can break or become dislodged. Examples of such objects include barrels, boxes, bricks, blocks, and similar items. This list is essentially the same as the one set forth in E § 1926.451(a)(2).

"Vertical pickup." This term defines the structural member addressed in paragraph § 1926.452(r)(1).

"Walkway." This term is used to describe platforms within a scaffold which are used for access and not as work platforms.

The following definitions have been deleted in the proposed standard. They now are defined either in another subpart or they simply are not needed because the revised provisions treat the subject in a different way than does the existing standard: "heavy duty scaffold," "light duty scaffold," "medium duty scaffold," "midrail," "toeboard," and "working load."

In the following discussion, a paragraph citation preceded by the letter "E" refers to a paragraph in the existing standard. All other citations are to the proposed standard.

#### *Section 1926.451 General requirements.*

This paragraph applies to all scaffolds, and contains most of the new rules and changed provisions. The rules in this section have been grouped into the five major subsections of capacity, construction, access, use, and fall protection, to facilitate locating a particular rule.

For purposes of clarification, those rules which apply only to certain types of scaffolds are so identified. For example, general rule § 1926.451(b)(14) would apply to supported scaffolds, and the term "supported scaffold" is used to indicate this. Similarly, general rule § 1926.451(b)(27) would only apply to suspension scaffolds. If a rule makes no distinction, like general rule § 1926.451(b)(1), then it would apply to all scaffolds.

#### *Paragraph 1926.451(a) Capacity.*

This proposed paragraph would set forth the minimum strength criteria for all scaffold components and connections. The proposed requirements are substantively the same as existing capacity provisions, however, the proposed language eliminates ambiguities and apparent inconsistencies.

Paragraph (a)(1) would require each scaffold component, except suspension ropes and guardrails, to be capable of supporting without failure its own weight and at least four times the maximum intended load applied or transmitted to that component. This is essentially the same requirement as E § 1926.451(a)(7) which requires that scaffolds and scaffold components "be capable of supporting without failure at least 4 times the maximum intended

load." However, as written, the existing requirement is inconsistent with paragraph E § 1926.451(a)(19), which requires a safety factor of six for suspension ropes, and is ambiguous as to its application to paragraph E § 1926.451(a)(5) which governs guardrails. The proposed standard is clear that the application of the 4 to 1 safety factor does not apply to suspension ropes or guardrails.

The proposed paragraph makes it clear that the 4 to 1 factor applies to the load which is actually applied or transmitted to a component, and not to the total load placed on the scaffold. As worded, E § 1926.451(a)(7) requires that each component, regardless of its location, configuration, or the number of other components supporting the same load, be designed to support four times the maximum intended load (MIL). Literally interpreted, this could be read to require that a crossbrace on a supported scaffold be capable of supporting the same load as a scaffold leg. That is, it must be sized to support four times the MIL regardless of where the load is placed on the scaffold, and regardless that the function of a brace is to prevent sway and not directly to support the MIL. The amount of MIL applied or transmitted to each component depends on its location on the scaffold, and the type and configuration of the scaffold system. On complicated systems, the services of an engineer may be required to determine the loads at a particular point. However, because some employers do not have an engineering staff, and because some employers prefer to have a quick reference table from which a scaffold can be readily built (even if over-designed), paragraph § 1926.451(a)(1) would allow the scaffold designer to use the tables and guidelines in Appendix A. These tables and guidelines are the same as are presently provided throughout the existing standard and are believed by OSHA to provide the required 4 to 1 factor of safety when loaded in accordance with the Appendix. However, whereas the existing standard requires the use of these tables and guidelines, the proposed standard does not require them. What would be required is that the scaffold meet the performance criteria set forth in paragraph § 1926.451(a)(1). Scaffolds built and loaded to conform with Appendix A would be deemed to meet this requirement. This allows design freedom to employers who desire to engineer their scaffold set-up, while also providing a solution for employers who

either do not desire to or cannot engineer the systems they use.

The tables in existing Subpart L (Tables L-3 through L-19) provide detailed specifications for components used in scaffold construction. However, OSHA believes that the important consideration in scaffold design and construction is that the scaffold support the MIL safely, and not that the scaffold have a particular sized upright regardless of MIL size and placement pattern. Consequently, the proposal would relocate all tables currently in § 1926.451, including Table L-3 governing maximum span distance, to Appendix A, and would not make the tables mandatory. Similarly, existing paragraphs such as E § 1926.451(a) (9) and (10), which specify minimum grade stress for lumber used, and E § 1926.451(c) (1), (2), (3) and (4), which specify tube size and maximum tube and coupler scaffold heights, also would be relocated to Appendix A. The relocation of existing tables and specification-type language does not reduce the level of safety presently effected by existing Subpart L. OSHA believes the proposed capacity requirements of paragraph § 1926.451(a) provide the same level of safety as the existing standard. The existing specification tables and paragraphs are engineered partial solutions to the requirements of E § 1926.451(a)(7) which requires the 4 to 1 factor of safety. Relocating these tables and paragraphs to Appendix A reduces redundant provisions and eliminates the interpretation that these specified provisions are the only acceptable ways of building a particular type scaffold.

Paragraph (a)(2) would clarify that the factor of safety of 4 to 1 also applies to direct connections to floors and roofs and to counterweight systems.

Paragraph § 1926.451(a)(3) would require that suspension ropes be capable of supporting six times the MIL, and is essentially the same as E § 1926.451(a)(19). In addition, paragraph (a)(4)(i) would require ropes to be sized so that sufficient rope surface area is available for the proper functioning of brake and hoist mechanisms used on suspension scaffolds. Paragraph (a)(4)(ii) would specify minimum rope strength for catenary scaffolds and is based on ANSI A10.8-1977, paragraph 22.2. Paragraph (a)(4)(iii), which specifies minimum rope strength for float and needle beam scaffolds, is the same as requirements E § 1926.451(p)(2) and E § 1926.451(v)(5).

#### *Paragraph 1926.451(b) Construction.*

Proposed paragraph (b)(1) would require all platforms, except walkways, to be fully decked or planked. Paragraph (b)(1) would clarify the provisions of E § 1926.451(a)(4), which requires guardrails on all open sides and ends of scaffolds. OSHA has interpreted E § 1926.451(a)(4) to mean that guardrails must be erected as close as possible to the platform planking. As guardrails normally can be conveniently attached only at the scaffold uprights, OSHA to date has required the platforms to be sized such that there is no gap between the outermost plank edge and the guardrail. However, most prefabricated end frames do not have a lateral spacing between uprights which can accommodate an integral number of commercially-available planks. Therefore, to comply with the existing rule, the last plank has to be notched, slanted, or cut to size. This can lead to a significant reduction in plank strength, and possibly cause tipping of the plank (sideways) if eccentrically loaded. Therefore, to deal with this problem, the proposed rule would modify the existing requirement by requiring the span between uprights to be planked or decked as fully as possible; but would allow up to nine and one-half inches between the planking or decking and the guardrail supports. Nine and one-half inches would be the maximum allowable open space as spaces larger than this can be filled with a standard sized platform unit (defined as individual wood planks, fabricated planks, fabricated decks, and fabricated platforms) without modification. The proposed rule also recognizes that some side warpage (as opposed to twist warpage) may occur to individual planks, and § 1926.451(b)(1)(i) would allow a maximum one-inch gap between platform units. When side brackets are used to extend the width of a platform, a gap would be permitted in the platform to accommodate the presence of the scaffold uprights.

Paragraph (b)(2) would specify a minimum width of 18 inches for all platforms, except platforms used on ladderjacks and boatswains' chairs. This would not require each platform unit to be at least 18 inches wide. Rather, it would require that the platform, which is made up of one or more platform units, to be at least 18 inches wide. OSHA believes 18 inches is the minimum safe width for scaffolds; however, the provision would allow ladderjack scaffold platforms to be as narrow as 12 inches wide. The smaller size for ladderjack scaffolds would be

made because the difficulty of handling one 18-inch wide plank or two nine-inch planks on a ladder is considered by OSHA to be more hazardous than working on one 12-inch wide platform. However, because the narrowness of the 12-inch platform could cause an employee to misstep, the proposal would require body belt/harness systems to be used on ladderjacks, whereas the existing standard requires no fall protection. The existing requirement specifying a minimum size for boatswains' chair seats is proposed to be deleted as many chairs use slings or molded seats, and such a requirement is too restrictive.

Paragraph (b)(3) would prohibit the use of emergency descent devices as working platforms. These devices are not normally designed for repeated in-place use. However, this provision is not intended to preclude the use of scaffold systems which have as an additional feature the capacity to function as an emergency descent device.

Paragraph (b)(4) would limit the distance that a platform may be away from the face of the structure being worked on to 14 inches, unless Type I guardrails or body belt/harness systems are used. The existing rule, E § 1926.451(a)(4), requires guardrails on all open sides and ends of a scaffold platform, but does not specify how far away a scaffold platform may be from a building before the side facing the building is considered to be an "open side." The existing rule is often interpreted to mean that no open space is allowed. However, zero clearance during all phases of construction is not feasible. The proposed 14-inch limit recognizes that during construction the face of the wall being built often moves out towards the scaffolds. There must be sufficient space at the beginning of work to allow for the installation of insulation, lathing, plaster, masonry units, ledges, facings and other architectural or structural additions. These must be allowed for from the start, as it is not practical to move large scaffolds away from the wall as wall construction progresses outward. When the initial set back distance must be more than 14 inches, the platform can often still be kept within 14 inches of the building by the use of side brackets or extensions on supported scaffolds, and by angulated roping, static lines, or equivalent means on suspension scaffolds. An exception to the 14-inch limit is made for outrigger scaffolds, which are limited to a distance of three inches, the same as required by E § 1926.451(g)(4). Another exception is made for plastering and lathing

operations, where the distance may be 18 inches. The 18-inch dimension was developed from data collected by Wang Associates (Ex. 5) which show that a shorter distance between the scaffold platform and the wall is not feasible for the operators of plastering and lathing equipment because of interference with the tools used during such operations. However, these same operations cause the employee to stand back from the edge and the hazard of falling is correspondingly reduced.

Paragraph (b)(5) would require platform units to extend a minimum of six inches beyond each end support, and is the same as E § 1926.451(a)(14). However, cleats would be allowed in lieu of overhang because of their ability to restrain movement of platform units.

Paragraph (b)(6) would change the maximum overhang allowed by E § 1926.451(a)(14) from 12 inches to 18 inches. This modification is made because many planks in use are 10 feet long and are used to span eight-foot distances. The existing rule requires these planks to be perfectly centered. This is an unnecessary requirement. In addition, because the proposed 18-inch limit, strictly interpreted, would require platform units to be cut if they extend more than 18 inches past their end supports, the rule provides that the overhang may exceed 18 inches if the extended portion is designed, capable, and installed to support employees without tipping, or is guarded to prevent employee access.

Paragraph (b)(7) would require proper support for abutting platform units. This provision is based on E § 1926.451(b)(12), which applies only to wood pole scaffolds. However, OSHA proposes that proper platform support is a valid consideration for all scaffolds, and the proposal would apply to all scaffolds. Abutted platform units do not rest one on another, but instead are end-to-end. Consequently, one unit does not support the other, and proper support can only be provided by separate bearers, butt plates, or equivalent supports.

Paragraph (b)(8) would require overlapped platforms to be overlapped a minimum of 12 inches. This would be the same requirement as E § 1926.451(a)(12), except the proposed rule also requires overlaps to occur over supports and not between supports.

Paragraph (b)(9) is taken from E § 1926.451(b)(13) for wood pole scaffolds, and prescribes the proper placement of platform units for maximum safety at corners or other changes in scaffold direction. OSHA proposes that this is a valid

consideration for all scaffolds, and not just wood pole scaffolds.

Paragraph (b)(10) is proposed to assure that structural defects in platform units are not covered from view by the use of an opaque coating or finish. Hairline cracks can significantly reduce the strength of a wood member and their early detection is important. Opaque finishes can cover such cracks and make them difficult to discover. Unit edges are excepted from this rule to allow identification marks, grading marks, or other similar type of marks to be placed on the unit edges.

Paragraph (b)(11), prohibiting random combinations of scaffold components, is proposed because of the many inferior scaffold systems which can result when the products of two different manufacturers are indiscriminately assembled together. Many such combinations result in scaffolds which are not in alignment or are not plumb, and which, therefore, do not properly carry or distribute the loads imposed on the scaffolds. However, some units can be intermixed with no problem and the proposed language, therefore, does not prohibit all such combinations. However, the parts must fit together without force, and if parts are modified in order to intermix them, a competent person must determine that the resulting scaffold is structurally sound (no makeshift connections to facilitate the mixing of mismatched pieces).

Paragraph (b)(12) would prohibit the use of scaffold components made of dissimilar metals unless a competent person has determined that the resulting galvanic action will not significantly reduce any component's strength. This is a change from E § 1926.451(c) (1), (2) and (3) which prohibit the use together of any dissimilar metals on tube and coupler scaffolds. The proposed rule would apply to all scaffolds, as the problem of dissimilar metals causing galvanic action can occur on any scaffold, not just tube and coupler scaffolds. However, the proposed rule would not prohibit all uses of dissimilar metals as there are many combinations which do not produce significant galvanic reactions.

Paragraph (b)(13) would require the stabilization of all supported scaffolds when their height to base width (including outriggers, if any) ratio exceeds 4 to 1. This rule is taken from E § 1926.451(e)(1), which applies only to manually-propelled mobile scaffolds. However, the danger of a scaffold toppling because its center-of-gravity is too high is a problem with all supported scaffolds. Therefore, OSHA believes that the 4 to 1 ratio should apply to all

supported scaffolds. Paragraph (b)(13)(i) would require ties, guys, or bracing at heights not to exceed the first multiple in height of the 4 to 1 ratio, and at 20-foot maximum intervals thereafter above the first tie, guy or brace. The following are examples of how this rule would be applied: (a) If a scaffold is five feet wide and 18 feet high, no ties, guys, or braces would be required because the height is less than four times the width; (b) if the scaffold is five feet wide and 60 feet high, ties, guys, or braces would be required at least at the 20, 40 and 60-foot levels; and (c) if the scaffold is five feet wide, 60 feet high, and the contractor ties, guys, or braces the scaffold at the 10-foot level, then ties and braces also would be required at least at the 30 and 50 foot levels, and no ties, guys, or braces would be required at the very top since the 60-foot level is only ten feet above the last intermediate level tie, guy or brace (at 50 feet).

Paragraphs (b)(13)(i) and (b)(13)(ii), which specify the horizontal spacing for ties, guys, and braces, also replace existing rules § 1926.451 (b)(4), (c)(12), and (d)(7). The existing rules require pole scaffolds, tube and coupler scaffolds, and fabricated frame scaffolds to be tied and braced at 26 feet vertically (25 feet for wood pole scaffolds) and 30 feet horizontally (25 feet for wood pole scaffolds). These existing rules are often misinterpreted to mean that scaffolds less than 26 feet high by 30 feet long (25 by 25 for wood pole scaffolds) do not need guys, ties, or braces. Proposed paragraph (b)(13)(ii) would replace the 26 and 25 foot vertical rules and require all scaffolds required by the 4 to 1 rule to have guys, ties, or braces, to have such connections installed at each end of the scaffold and at horizontal intervals not to exceed 30 feet (measured from one end only). The following are examples of how this rule would be applied: (a) If a scaffold is five feet wide, 18 feet high and 50 feet long, no vertical or horizontal ties and braces would be required because the height is less than four times the width and the four to one rule does not require connections; (b) if the scaffold is five feet wide, 50 feet high, and 25 feet long, ties and braces would be required at least at the 20 and 40-foot levels at both ends of the scaffold (four ties and braces in all); (c) if the scaffold is five-feet wide, 50-feet tall, and 70-feet long, ties and braces would be required at least at the 20 and 40-foot levels. These would be installed starting from either end, at least at the zero, 30, 60, and 70-foot horizontal distances (eight ties and braces in all).

Paragraph (b)(14) would consolidate rules E § 1926.451 (a)(2), (b)(1), (c)(8), (d)(4), (e)(8), (n)(7) and (y)(5), all of which require that scaffold uprights rest upon a stable, firm, level footing. This is not a new requirement, although the language is changed for purposes of clarity and uniformity.

Paragraph (b)(15) would consolidate rules E § 1926.451 (a)(15), (b)(1), (c)(8) and (e)(8), all of which require that uprights be secure, plumb, and braced to prevent swaying and displacement of the scaffold. This is not a new requirement, although the language is changed for purposes of clarity and uniformity.

Paragraph (b)(16) is the first of the paragraph (b) rules which specifically address suspension scaffolds. This proposed rule requires suspension support devices to rest on surfaces capable of supporting the suspension scaffold. It is taken from E § 1926.451(h)(9), and addresses the problem of adequate support for the scaffold system. It is the suspension scaffold equivalent of proposed rule (b)(14), which requires firm footing for supported scaffolds.

Paragraphs (b)(17), (18) and (19) would set forth conditions required for the use of outrigger beams, but would not require that such beams be used on suspension scaffolds. Paragraph (b)(17) would require beams to be made of structural metal and to be restrained to prevent movement. This is the same requirement as E § 1926.451 (h)(4) and (k)(8). Paragraph (b)(18) would require stabilizing the inboard ends of outrigger beams by direct connections to the floor or roof deck or by the use of counterweights. This rule clarifies E § 1926.451(h)(4) and E § 1926.451(j)(5) which require only that outriggers be securely fastened or anchored. Counterweights are not addressed in the existing standard, and the proposal corrects this oversight. Counterweights are often the only way to anchor a scaffold without damage to the supporting floor or deck. However, because of the large load often placed on masons' adjustable multi-point suspension scaffolds and the large counterweights that would be necessary to anchor such systems, the proposal does not allow counterweights for stabilizing masons' suspension scaffolds. This provision is intended to keep the supporting roof or floor from becoming dangerously overloaded.

Paragraph (b)(18)(i) would require that direct connections be evaluated by a competent person (and designed by an engineer for masons' adjustable-multi-point scaffolds) to insure that the roof or

floor deck is capable of supporting the loads to be imposed. Paragraph (b)(18)(ii) would require that counterweights be made of solid material, and, in effect, prohibits the practice of using sandbags or water-filled buckets as counterweights. Such counterweights are easily displaced and may leak. Paragraph (b)(18)(iii) would require counterweights to be mechanically attached to the outrigger beam. This provision would help protect against accidental counterweight displacement. Paragraph (b)(18)(iv) would prohibit the removal of counterweights from a scaffold until the scaffold is disassembled. This new rule is also intended to prevent scaffolds from being improperly balanced. Paragraph (b)(18)(v) would require outrigger beams to be tied back as an additional means of anchorage. This new provision would provide a back-up system in case the counterweights become displaced. Although tiebacks alone may not keep a scaffold from tipping, they will keep the system from falling to the ground and from causing a progressive failure of nearby scaffolds and scaffold sections. Vents, standpipes, other piping systems, and electrical conduits are not acceptable points of anchorage because they are often made of materials that cannot support the loads that would be imposed on them if a counterweight system were to fail. Paragraphs (b)(18) (vi) and (vii) would specify how tiebacks are to be installed.

Paragraph (b)(19) would specify the construction requirements for outrigger beams. Paragraph (b)(19)(i) is based on E § 1926.451(h)(8) and E § 1926.451(j)(5), and would require stop bolts or shackles at each end of beam to prevent the beam, as well as anything supported from the beam, from coming off the beam or beam support. Paragraph (b)(19)(ii) would allow the use of channel beams in lieu of "I" beams, provided they are fastened together with their flanges turned out. Paragraph (b)(19)(iii) is a new rule and would require that outrigger beams be installed with all bearing supports installed perpendicular to the beam centerline. This would help prevent tipping of the beam due to any eccentric loading. Paragraph (b)(19)(iv) would require all outrigger beams to be used with their web in a vertical position. This provision is the same as E § 1926.451 (h)(7) and (j)(5). Paragraph (b)(19)(v) would specify the correct alignment for steel shackles, clevises, and the hoisting drum when single outriggers are used. This provision is the same as E § 1926.451(h)(11).

Paragraph (b)(20) would address the types of supports, other than outrigger beams, used to suspend suspension scaffolds. Paragraph (b)(20)(i) would require that support devices such as cornice hooks, roof hooks, roof irons, and parapet clamps, be made of mild steel or equivalent material, and is the same as E § 1926.451(i)(4). Paragraph (b)(20)(ii) is a new rule and would require the use of bearing blocks to spread loads. Paragraph (b)(20)(iii) would require the use of tiebacks, the same as E § 1926.451(i)(4). The proposal, however, would specify that the tiebacks be equivalent in strength to the hoisting ropes. The tieback must be as strong as the hoisting ropes as they may have to support the scaffold in the event of a scaffold problem. Vents, standpipes, other piping systems, and electrical conduits are not acceptable points of anchorage because they are often made of materials that cannot support the loads that would be imposed on them if the support device were to fail.

Paragraph (b)(21) would specify the minimum length of suspension rope to be used at each installation. The proposal is based on rules E § 1926.451(h)(10) and (j)(7), with the clarification that either the rope shall be long enough to allow the scaffold to be lowered to the next level without the rope end passing through the hoist, or the rope shall be configured or provided with a means to prevent its end from passing through the hoist. OSHA believes this provision will prevent accidental runthrough of the suspension rope.

Paragraph (b)(22) would prohibit the repairing of wire suspension ropes. This is a new requirement and is based on OSHA's view that there is no way to determine the strength capacity of a repaired wire rope without the danger of overstressing the repair and thus rendering the rope unsafe for use on scaffolds. This provision does not prohibit joining together two or more pieces of wire rope as allowed by paragraph (b)(23).

Paragraph (b)(23) would allow suspension ropes to be joined together only by the use of eye splices with shackles, or coverplates and bolts. This is a new requirement and is based on OSHA's view that these are the only acceptable ways to connect wire ropes without affecting their strength capacities.

Paragraph (b)(24) would require the load ends of wire suspension ropes to be equipped with proper size thimbles, and to be secured by eye splicing or equivalent means. This requirement is the same as E § 1926.451(h)(10) and E § 1926.451(j)(7).

Paragraph (b)(25) would prohibit the use of defective or damaged ropes, and is based on E § 1926.451(w)(5) which prohibits damaged ropes from being used on float or ship scaffolds. Like the other rules discussed in this section, this rule is proposed to apply to all suspended scaffolds. The danger of a broken line is a problem not confined to float or ship scaffolds.

Paragraph (b)(26) is a new requirement and would require that swaged attachments or spliced eyes on wire suspension ropes be used only if they are made by the wire rope manufacturer or a qualified person.

Paragraph (b)(27) would require that wire rope clips be retightened after the initial loading and periodically thereafter. Such clips can work loose under cyclic loading and should not be assumed to be properly tightened without being checked on a regular basis.

Paragraph (b)(28) would require that scaffold hoists, both mechanically-powered and manually-powered, be of a type tested and listed by a qualified testing laboratory. This provision is a consolidation of existing provisions E § 1926.451 (h)(2), (i)(3), (j)(2), and (k)(1), except that a qualified testing laboratory must be used. For a definition of "qualified testing laboratory," see newly revised Subpart K—Electrical. OSHA is presently evaluating the many issues related to the use of testing laboratories (including OSHA's role in recognizing such laboratories) in the context of its general industry standards. To this end, OSHA published a notice of proposed rulemaking (49 FR 8326) on March 6, 1984, on the safety testing or certification of certain workplace equipment and materials involving the use of accredited testing laboratories. Although the testing and certification proposal is not applicable to the construction industry and would not directly affect Subparts K and L of Part 1926, it does incorporate a term that is analogous to the Subparts K and L term "qualified testing laboratory" (called "qualified electrical testing laboratory" in the general industry proposal). OSHA therefore recognizes that, in the interest of consistency, the outcome of the general industry rulemaking on safety testing or certification may possibly lead the Agency to reevaluate the use of terms and definitions that are found in Subparts K and L of Part 1926. When that rulemaking has been completed, appropriate changes will be proposed for the regulations in Subparts K and L, if necessary, as well as for other OSHA regulations which deal with product approval and testing laboratories.

Paragraph (b)(29) would prohibit the use of gasoline-powered hoists and is based on E § 1926.451(k)(2) which allows units to be either electrically or air motor driven. Gasoline hoists have fire hazards which are not acceptable given the confined area of a scaffold where timely escape could be very difficult, and perhaps impossible if the hoist is incapacitated.

Paragraph (b)(30) would require mechanically-powered operated gears and brakes to be enclosed, and is the same requirement as E § 1926.451(k)(3).

Paragraph (b)(31) would require that an automatic braking device or locking pawl be provided, in addition to the normal operating brake, to slow a hoist when its normal speed of descent (as recommended by the hoist manufacturer) is exceeded. This is the same requirement as E § 1926.451(k)(4), except the proposed requirement would apply to manually-powered hoists as well as mechanically-powered hoists.

Paragraph (b)(32) would require manually-powered hoists to be built that require a positive crank force to lower the scaffold. This is a new requirement and is based on OSHA's view that it will eliminate the dangerous condition of "free-running" hoists during descents. OSHA requests comments and supporting information on the need for this new requirement.

#### *Paragraph 1926.451(c) Access.*

Paragraphs (c) (1) through (6) set forth the requirements for safe access to scaffolds. They are intended to clarify the requirement of E § 1926.451(a)(13), which only requires "an access ladder or equivalent safe access shall be provided." However, OSHA's view is that these provisions should not apply to employees performing scaffold erection and dismantling operations because such rules often are not feasible until a scaffold has been erected and properly braced.

Paragraph (c)(1) provides that access to and between scaffolds more than two feet above or below the point of access shall be by certain specified means of access. This paragraph consolidates the requirements of E § 1926.451(e)(5) that ladders or stairways be provided and used on mobile scaffolds; E § 1926.451(g)(3) that connecting runways be used for access to plasterers', decorators', and large area scaffolds; and E § 1926.451(y)(9) that ladders be used for pumpjack scaffold access. In addition, other types of access are recognized as being acceptable means of access such as integral prefabricated rungs. Paragraph (c)(1) also recognizes the current industry and trade practice

of using hook-on and attachable ladders designed for use with manufactured-types of scaffolds, and direct access from other scaffolds, structures, personnel hoists, or similar surfaces. The paragraph prohibits the use of crossbracing as a means of access. OSHA believes crossbraces do not provide adequate footings or handholds as they are not designed nor intended to serve as a means of access. Their use as such is believed by OSHA to be extremely hazardous.

Paragraph (c)(2) would set forth the conditions required for the use of ladders as means of access. Paragraph (c)(2)(i) would require ladders to be positioned so as not to tip the scaffold. This is based on existing mobile scaffold rule E § 1926.451(e)(5). Paragraph (c)(2)(ii) would require that the bottom rung of hook-on and attachable ladders be not more than 24 inches above the scaffold support level. This would allow scaffolds to be leveled and adjusted without constantly adjusting the ladder, up to a maximum of 24 inches. Paragraph (c)(2)(iii) would require landing platforms be provided at 20-foot maximum vertical intervals for hook-on and attachable ladders. The 20-foot requirement is a change from E § 1926.451(e)(5), which applies only to mobile scaffolds and which specifies 35-foot intervals. The proposed rule would apply to all scaffolds, and the change in the height specification is proposed so that the provision will be consistent with its counterpart in the general industry standards and because it provides a safer work environment. The proposal does not require ladders to be offset every 20 feet, or that a landing be provided on the ladder itself. It would simply require that rest platforms be placed not more than 20 feet apart. Existing work platforms or walkways which are already part of the scaffold could be used to meet this requirement. OSHA requests comments and supporting information on the need for landing platforms at 20-foot intervals, rather than at 35-foot intervals. Paragraph (c)(2)(iv) would require hook-on and attachable ladders to be specifically designed for use with manufactured types of scaffolds to insure compatibility. Paragraphs (c)(2)(v) and (vi) would specify minimum rung width and maximum rung spacing for hook-on and attachable ladders.

Paragraph (c)(3) would set forth conditions required for the use of stairway-type ladders as means of access. Paragraphs (c)(3)(i) and (ii) are similar to paragraphs (c)(2)(v), (ii) and (iii) above. Paragraph (c)(3)(iii) would require a minimum step width of 18

inches, and is based on § 1910.29(a)(3)(ii) which is a general industry rule applicable to scaffold use in construction. Paragraph (c)(3)(iv) would require slip-resistant treads on all stairs and landings. This rule is based on general industry rule § 1910.29(a)(3)(iv) which requires the steps to be fabricated from slip-resistant treads; however, the proposal would allow the use of other means to obtain the required surface, such as slip-resistant coatings.

Paragraph (c)(4) would require ramps and runways to be provided with guardrails as required by proposed Subpart M—Fall Protection.

Paragraph (c)(5) sets forth conditions required for the use of integral prefabricated scaffold rungs. Paragraph (c)(5)(i) would require that such rungs be specifically designed for use as rungs. That is, they must be capable of supporting ladder-type loads. Paragraph (c)(5)(ii) would require rungs to be at least 11½ inches wide to provide adequate footing, and paragraph (c)(5)(iii) would require that rungs be uniformly spaced. These are the same requirements as for other types of ladders (see Notice of Proposed Rulemaking for Subpart X—Stairways and Ladders). Paragraph (c)(5)(iv) would require rest platforms at 20-foot maximum vertical intervals, the same as (c)(2)(ii) above. Paragraph (c)(5)(v) would require a maximum spacing between rungs of 16½ inches.

Paragraph (c)(6) would require all rungs and steps to line up vertically with each other between rest platforms. This is to assure that a continuous climbing surface is provided. Employees descending a scaffold can misstep if rungs and steps are offset. An example of this is integral rungs on frame scaffolds. If the frames are not oriented in the same direction (i.e., ladder rungs all on the left side) a non-continuous ladder surface will result which can cause a misstep.

Paragraph (c)(7) sets forth the conditions required for direct access to a scaffold. Direct access may be made only when the two surfaces are not more than 14 inches apart horizontally, and 24 inches apart vertically. The 14-inch dimension is based on proposed rule § 1926.451(b)(4). The 24-inch dimension is consistent with similar provisions in other paragraphs in paragraph (c) above.

#### *Paragraph 1926.451(d) Use.*

This paragraph addresses the use of scaffolds and the activities which take place on scaffolds.

Paragraph (d)(1) would prohibit the overloading of a scaffold. This requirement clarifies and consolidates E

§§ 1926.451 (h)(1), (i)(8), (j)(1), (s)(6), (t)(4), (w)(1), (x)(3) and (y)(1)(iii), and complements proposed rule § 1926.451(a)(1) which requires that scaffolds be capable of supporting four times the maximum intended load without failure. This rule insures that the scaffold's capacity is not exceeded.

Paragraph (d)(2) would prohibit the use of shore or lean-to scaffolds, and is the same provision as E § 1926.451(a)(20). Such scaffolds are not properly designed nor properly constructed, and pose a serious threat to anyone working on them.

Paragraph (d)(3) would require all scaffolds to be inspected by a competent person for visible defects prior to each workshift and after any occurrence which could affect the scaffold's structural integrity. Examples of such occurrences are impact loadings caused by vehicles, hoists, extremely high winds, or any other event which places large stresses on the system. This rule is based on E §§ 1926.45 (i)(7) and (k)(5), which require inspections of certain types of suspension scaffolds; however, OSHA believes all scaffolds should be inspected. OSHA requests public comment on the frequency of inspection in Issue Number 16 discussed later in this document.

Paragraph (d)(4) would require the bracing, or removal until repaired, of all scaffold components which have been damaged or weakened such that their strength has been reduced. This requirement clarifies and consolidates existing requirements E §§ 1926.451 (a)(8) and (o)(6). Bracing would be allowed as the removal of a damaged component may be extremely difficult due to its location.

Paragraph (d)(5) would prohibit the movement of scaffolds while employees are on them, except that mobile scaffolds may be moved under certain specified conditions. This clarifies existing rules E §§ 1926.451 (a)(3), (e)(6), (e)(7), (e)(8) and (p)(1) which appear to conflict with each other.

Paragraph (d)(6) would restrict the use of scaffolds near exposed and energized electric power and distribution lines. This new requirement is based on ACCSH recommendations and on paragraph E § 1926.550(a)(15) which regulates the use of cranes near lines of 50 kv or more. Paragraphs (d)(6)(i) and (ii) prohibit the use of scaffolds closer than 10 feet to all energized lines of 300 volts or more, even if the lines are insulated. Paragraph (d)(6)(iii) allows scaffolds to be used within 2 feet of energized lines less than 300 volts, provided the line is insulated. Paragraph (d)(6)(iv) prohibits the use of scaffolds

closer than 10 feet to all energized uninsulated lines, of any voltage, which are exposed (not covered or guarded from contact by employees). OSHA believes these clearances would allow work, such as installing sheet metal siding on residential-type structures, to be performed safely without the need for power lines to be deenergized.

Paragraph (d)(7) would allow scaffolds to be erected, moved, dismantled, or altered only under the supervision of a competent person. It is the same requirement as E § 1926.451(a)(3).

Paragraph (d)(8) would clarify the provision of E § 1926.451(a)(17) regarding work on slippery scaffold platforms. The proposal states that no work shall take place on slippery platforms except to remove the hazard.

Paragraph (d)(9) would require the use of tag lines or similar measures to stabilize swinging loads being hoisted onto scaffolds or near scaffolds where the load could damage or impact the scaffold. This is based on § 1910.28(a)(15), a general industry standard that applies to construction, but which requires tag lines only when loads are being hoisted onto the scaffold. The proposal would extend the provision to cover other hoisting operations as the hazard being guarded against is the same, regardless of the destination of the load.

Paragraph (d)(10) would require that suspension ropes be shielded from harm caused by heat-producing processes, acids, and other corrosive substances which are used on a scaffold. This requirement is essentially the same as E § 1926.451(a)(18), which prohibits the use of any heat producing process on scaffolds supported by fiber or synthetic rope, and which requires that only treated or protected fiber or synthetic ropes be used near corrosive substances. However, the proposal would allow the use of heat producing processes if the ropes are shielded.

Paragraph (d)(11) would prohibit work on scaffolds during storms or when wind speeds exceed 40 mph, unless body belt/harness systems are worn or wind screens erected. This requirement is based on general industry regulation § 1910.28(a)(18). OSHA, in Issue Number 6, solicits comment on whether the 40 mph figure is appropriate, and what other methods are available to protect employees from high winds.

Paragraph (d)(12) would prohibit debris accumulation on scaffold platforms and is based on 29 CFR 1910.28(a)(20), a general industry regulation that applies to construction.

Paragraph (d)(13) would prohibit the use of ladders or makeshift devices on

scaffolds to raise the working level of employees. This would be a new provision and would assure that workers are provided with a secure work platform, and would eliminate the hazard of tipping caused by portable ladders exerting a sideways thrust on scaffold systems. OSHA requests comments and supporting information on the need for this requirement.

Paragraph (d)(14) would limit the amount platform units could deflect under load. This is to prevent platform units from becoming overstressed and to prevent their ends from being pulled off their supports.

#### *Paragraph 1926.451(e) Fall protection.*

This paragraph would address all fall protection as related to the hazards of falling from or through a scaffold.

Paragraph (e)(1) clarifies and consolidates the following existing rules: E §§ 1926.451 (a)(4), (b)(15), (c)(13), (d)(10), (e)(10), (g)(5), (h)(15), (i)(8), (j)(11), (k)(9), (l)(4), (m)(6), (o)(7), (p)(9), (q)(4), (r)(5), (t)(3), (u)(3), (w)(6), (x)(5)(v), (x)(6)(iii), (y)(11), E § 1926.500(c)(2), and E § 1926.1910.29(a)(3)(vii). Whereas the existing rules are specific requirements to have guardrails only or safety belts only, the proposal would require that all employees on platforms more than 10 feet above lower levels be protected by a choice of Type I guardrails or body belt/harness systems, with certain exceptions discussed below.

Paragraph (e)(1)(i) recognizes the impracticability of using any fall protection system other than body belt/harness systems on certain types of scaffolds. This consolidates existing rules E §§ 1926.451(1)(4)—boatswains' chairs; (p)(9)—needle beam scaffolds; (w)(6)—float scaffolds; and E § 1926.752(k)—float scaffolds for steel erectors, and is a new rule for catenary scaffolds and ladder jack scaffolds.

Paragraph (e)(1)(ii) would require body belt/harness systems and Type I or Type II guardrail systems on all single-point adjustable suspension scaffolds (except boatswains' chairs) and on all two-point adjustable suspension scaffolds. The requirement to have guardrails and body belt/harnesses on two-point scaffolds is the same as E §§ 1926.451 (i)(8) and (i)(11), and is based on OSHA's belief that guardrail systems do not provide adequate fall protection when a suspension rope fails, causing a scaffold to tip or hang from only one end. OSHA believes that body belt/harness protection is also required on single-point systems as the hazard related to rope failure is the same on both types of scaffold. However, as body belt/

harnesses would be the primary means of fall protection on single-point and two-point systems, Type II guardrail systems may be used in lieu of Type I systems. Type II systems have lower minimum height and strength requirements than Type I systems.

Paragraph (e)(1)(iii) is essentially the same as E § 1926.451(v)(2), which requires lifelines along "crawling boards," except the proposal would allow the alternative use of body belt/harness systems or guardrail systems.

Paragraph (e)(1)(iv) would require that employees on self-contained scaffolds be protected by body belt/harness and guardrail systems when the platform is supported by ropes (as when the scaffold is being raised or lowered on some systems) and by guardrail systems when the platform is supported directly by the scaffold frame.

Paragraph (e)(1)(v) would require guardrails to be used along scaffold walkways and to be located within eight inches of at least one side of the walkway. The provision that guardrails need be provided only along one side applies only when the platform is used as a means of access to get from one point on the scaffold to another. If work activities other than access are performed on or from the walkway, then the platform is not considered to be a walkway (see definition of "walkway") and the provisions of paragraphs (e)(1) (i) through (iv) would apply.

Employees performing overhand bricklaying operations from a supported scaffold would be protected as required by proposed Subpart M—Fall Protection.

Paragraph (e)(2) would require employees on platforms less than 45 inches wide and 4 to 10 feet above lower levels to be protected by a body belt/harness or Type I guardrail system. However, as in E § 1926.451(a)(4), this provision would not apply to self-contained suspension scaffolds, nor to any of the 23 types of scaffolds identified in § 1926.452 of the proposal. The existing requirement, as written, appears to apply to all scaffolds including those specifically exempted in the proposed paragraph. However, this broad coverage was never the intended scope of the existing provision. This is evidenced by the format of the existing rules which do not repeat this requirement in any of the specific sets of rules, although the first part of the existing paragraph (requiring protection on platforms more than 10 feet high) is restated 19 times. The proposed paragraph would allow the alternative use of body belt/harness systems

instead of requiring only guardrail systems.

The provisions of paragraphs (e) (1) and (2) would not apply to employees erecting or dismantling scaffolds as there is often no recognized feasible way of providing fall protection for such employees. Issue Number 8, however, requests additional public comment on this point. In addition, the provisions would not apply if a scaffold is completely enclosed by the walls of a structure. To be completely enclosed, no perimeter face of the scaffold may be more than 14 inches from a wall. In other words, there may be no open sides or ends on the scaffold (see definition § 1926.450(b)). However, fall protection would be required at openings such as hoistways, elevator shafts, stairwells, or similar openings in the scaffold platform, or in the walls of the structure surrounding the platform.

Paragraph (e)(3) would provide that body belt/harnesses must be secured by lanyard to a dropline, trolley line, or scaffold structural member. However, body belt/harnesses are effective only when there are no overhead scaffold components. When there are overhead obstructions, such as additional platforms on a multi-level suspended scaffold, or a falling object canopy, the employee could be seriously injured or killed when the dropline body belt/harness arrangement arrests the employee's fall, and the overhead obstruction strikes the employee as it falls past. Therefore, paragraph (e)(3) would provide that when a scaffold has overhead obstructions, then droplines shall not be used. Paragraph (e)(3)(i) would provide that when droplines are used that they not be connected to the scaffold. This is the same requirement as in E § 1926.451(i)(8). Paragraph (e)(3)(ii) would provide that when trolley lines are used that they not be connected to the suspension lines. This would provide protection to the employee in the event of a suspension line failure. Paragraph (e)(3)(iii) would provide that when lanyards are connected to trolley lines or scaffold members on two-point adjustable scaffolds, then the scaffold shall be equipped with additional independent support lines. In the event of a suspension rope failure, the additional lines would keep the scaffold from falling. Paragraph (e)(3)(iv) would prohibit droplines, independent support lines, and suspension ropes from being attached to each other or to the same point of anchorage.

Paragraph (e)(4) would require guardrail systems to conform to provisions essentially the same as those

proposed and discussed in the preamble to revised Subpart M—Fall Protection. However, because fall protection on single-point adjustable and two-point adjustable suspension scaffolds would be provided by body belt/harness systems, the guardrail requirements on these types of scaffolds are proposed to be less stringent than on other scaffolds where guardrails are the principal fall protection system. Guardrails on single point adjustable and two-point adjustable suspension scaffolds are considered by OSHA to be barriers that serve as scaffold edge delineators, restrain movement, provide handholds, and prevent misstepping. These functions do not require the same size and strength guardrail system as does fall protection. Therefore, the minimum requirements for guardrail systems (referred to as Type II systems) used on single-point and two-point scaffolds would be less than those for other guardrail systems (referred to as Type I systems) used on other scaffolds. The specific differences are set forth in proposed paragraphs (e)(4) (ii), (vii), and (viii), discussed below.

Paragraph (e)(4)(i) would require that when guardrail systems are used to provide fall protection, that they be installed along all open sides and ends of the platform. This is the same requirement as E § 1926.451(a)(4).

Paragraph (e)(4)(ii) would specify a lower limit on guardrail system height of 38 inches for Type I guardrail systems and 36 inches for Type II guardrail systems. The 38-inch lower limit is proposed in lieu of the 39-inch lower limit of proposed Subpart M to allow for guardrail height differentials caused by platform unit arrangements. For example, a frame constructed to hold a top rail 42 inches above a flush-mounted prefabricated deck would be only 40 inches above a platform made with two-inch solid sawn planks. If the planks are overlapped to form a long platform, the height would drop to 38 inches. The maximum height limit would be 45 inches for all scaffold guardrail systems.

Paragraph (e)(4)(iii) would require midrails, screens, mesh, intermediate vertical members (such as balusters), solid panels, or equivalent structural members be installed between the top edge of the guardrail system and the scaffold platform. This is essentially the same requirement as E § 1926.451(a)(5), except more alternatives are listed than just midrails, and the term "when required" is deleted as being too vague.

Paragraphs (e)(4) (iv) through (vi) specify the criteria for the installation of the midrails, screens, mesh, and baluster

type protection required by paragraph (e)(4)(iii).

Paragraphs (e)(4) (vii) and (viii) would specify that Type I top rails (or equivalent) be capable of withstanding a force of at least 200 pounds applied in any downward or horizontal direction at any point along the top rail (Type II guardrail systems would have a 100 pound minimum requirement) and not deflect to a height lower than the specified limit set forth in paragraph (e)(4)(ii). The force requirement for midrails in paragraph (e)(4)(ix) would be at least 150 pounds for Type I systems, and 75 pounds for Type II systems. The 150 pound force requirement is not specified in the existing standard. However, the existing rules (e.g., E § 1926.451(b)(15) *et al.*) require midrails to be made of 1 x 6-inch lumber (or other material providing equivalent protection). The existing standard also requires midrails to be not more than 8 feet long (E § 1926.451(a)(5)), and to be a minimum 1,500 fiber stress construction grade lumber (see E § 1926.451(a)(9)). On the average, such wooden midrails can support loads up to approximately 160 pounds before breaking. Therefore, OSHA is proposing to replace the specific reference to 1 x 6-inch lumber with the performance criteria of 150 pounds force. Similarly, OSHA is proposing a performance criteria of 50 pounds for toeboards in proposed paragraph § 1926.451(f)(3).

Paragraph (e)(4)(x) would recognize that a separate guardrail section is not required on the ends of suspension scaffolds when the scaffold's support system (stirrup) or hoist restricts passage of employees.

Paragraph (e)(4)(xi) requires that guardrail systems be smooth surfaced to prevent employee injury due to lacerations or tripping caused by snagged clothing, and is essentially the same as the requirement in E § 1926.500(f)(1).

Paragraph (e)(4)(xii) requires that top rails and midrails not be so long as to constitute a hazard, and is the same as the requirement in E § 1926.500(f)(1).

Paragraph (e)(4)(xiii) is a new requirement and prohibits the use of steel banding and plastic banding as top rails or midrails. While such banding can often withstand a 200 pound load, it can tear easily if twisted. In addition, such banding often has sharp edges which can cut a hand if seized.

*Paragraph 1926.451(f) Falling object protection.*

This paragraph would address the hazard of falling objects.

Paragraph (f)(1) would require that overhead protection be provided, in addition to hardhat protection, for employees on scaffolds when they are exposed to the hazard of objects falling from overhead. This paragraph is based on existing rules E § 1926.451 (a)(16) and (h)(13). Paragraph (f)(1)(ii) would require the use of additional independent support lines to support the scaffold in the event of suspension support rope failure. The reason for this requirement has been explained earlier in the discussion of paragraph (e)(4). Paragraph (f)(1)(iii) would require that independent support lines and suspension ropes not be attached to the same point of anchorage. This new rule would prevent the loss of the backup safety systems in the event of suspension rope anchorage failure.

Paragraph (f)(2) would require protection from falling objects for employees on levels below the scaffold. Paragraph (f)(2)(i) would allow the use of barricades on the lower levels to exclude employees from the danger area. This is a new provision and recognizes the obvious fact that accidents can be avoided by eliminating employee exposure to the hazard. Paragraph (f)(2)(ii) would allow the alternative of providing toeboards (edging on float scaffolds) along the edge of exposure. Whereas existing rule E § 1926.451(a)(4) requires toeboards to be erected along the entire length of all open sides and ends of all scaffolds more than 10 feet high, the proposal would require them only along the edge of exposure. For example, on a long scaffold where employees are working on the ground near one end of the scaffold, the proposal would require the scaffold to have a toeboard at the end over the employees below, but not at the other end. This would be the case whether the scaffold work platform is 5, 10, or more feet in height. This change recognizes that toeboards and equivalent members are for the protection of employees below, and if those employees are not exposed or are otherwise protected, then toeboards are not necessary. Paragraphs (f)(2) (iii), (iv) and (v) would allow additional ways of providing falling object protection. Screens, guardrail systems with small openings, and canopies would all be recognized as effective means of providing employee protection.

Paragraph (f)(3)(i) would set forth the strength criteria for toeboards as discussed above. Paragraph (f)(3)(ii) would set forth the construction requirements for toeboards, and is essentially the same as E § 1926.500(f)(3).

#### *Section 1926.452 Additional requirements applicable to specific types of scaffolds.*

This section contains rules which would apply only to specific types of scaffolds as indicated. These rules would apply in addition to the general rules of § 1926.451.

##### *Paragraph 1926.452(a) Pole scaffolds.*

The word "wood" would be deleted from the title as used in E § 1926.451(b) as the scaffold could be made of other materials.

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirement in the existing paragraphs listed:

Proposed paragraph	Existing paragraph
§ 1926.452(a)(1) .....	§ 1926.451(b)(14)
§ 1926.452(a)(2) .....	§ 1926.451(b)(9)
§ 1926.452(a)(3) .....	§ 1926.451(b)(10)
§ 1926.452(a)(4) .....	§ 1926.451(b)(10)
§ 1926.452(a)(5) .....	§ 1926.451(b)(5)
§ 1926.452(a)(6) .....	§ 1926.451(b)(5)
§ 1926.452(a)(7) .....	§ 1926.451(b)(7)
§ 1926.452(a)(8) .....	§ 1926.451(b)(7), (10)
§ 1926.452(a)(9) .....	§ 1926.451(b)(2)
§ 1926.452(a)(10) .....	§ 1926.451(b)(16)

The following existing provisions would not be carried forward in this paragraph as specific provisions for pole scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed general rule
§ 1926.451(b)(1) .....	§ 1926.451(b)(15), (16)
§ 1926.451(b)(3) .....	§ 1926.451(b)(4)
§ 1926.451(b)(4) .....	§ 1926.451(b)(14)
§ 1926.451(b)(6) .....	§ 1926.451(b)(16)
§ 1926.451(b)(10) .....	§ 1926.451(a)(1)
§ 1926.451(b)(11) .....	§ 1926.451(b)(1)
§ 1926.451(b)(12) .....	§ 1926.451(b)(5), (7), § 1926.451(a)(1)
§ 1926.451(b)(13) .....	§ 1926.451(b)(6)(i)
§ 1926.451(b)(15) .....	§ 1926.451(e)
Table L-4 through 9 .....	§ 1926.451(a)(1), .451(e)

##### *Paragraph 1926.452(b) Tube and coupler scaffolds.*

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirements in the existing paragraphs listed:

Proposed paragraph	Existing paragraph
§ 1926.452(b)(2) .....	§ 1926.451(c)(10)
§ 1926.452(b)(4) .....	§ 1926.451(c)(11)
§ 1926.452(b)(5) .....	§ 1926.451(c)(8)
§ 1926.452(b)(7) .....	§ 1926.451(c)(7)
§ 1926.452(b)(8) .....	§ 1926.451(c)(7)
§ 1926.452(b)(10) .....	§ 1926.451(c)(4), (5)

Paragraph (b)(1) is new for tube and coupler scaffolds and would require that platforms not be moved until the next

location is properly prepared to support the platform being moved. This is the same requirement as E § 1926.451(b)(14) for wood pole scaffolds. This rule is added to this section because it addresses the problem of platform stability during construction, a problem which exists for tube and coupler scaffolds as well as pole scaffolds.

Paragraph (b)(3) would require longitudinal bracing on scaffolds, the same as E § 1926.451(c)(11). The paragraph is reworded for clarity.

Paragraph (b)(6) would require bearers to be long enough to provide full contact with the coupler. This is essentially the same as E § 1926.451(c)(9), however, the specifications are deleted because component strength would be governed by proposed general rule § 1926.451(a)(1).

Paragraph (b)(9) would specify the types of materials from which couplers may be made. This requirement was formerly contained in existing definition E § 1926.452(b)(6), "coupler," and is incorporated into the proposed standard for proper enforcement.

The following existing provisions would not be carried forward in this paragraph as specific provisions for tube and coupler scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(c)(1) .....	§ 1926.451(a)(1), (b)(13)
§ 1926.451(c)(2) .....	§ 1926.451(a)(1), (b)(13)
§ 1926.451(c)(3) .....	§ 1926.451(a)(1), (b)(13)
§ 1926.451(c)(5) .....	§ 1926.451(a)(1)
§ 1926.451(c)(6) .....	§ 1926.451(b)(16)
§ 1926.451(c)(7), last sentence .....	§ 1926.451(a)(1)
§ 1926.451(c)(12) .....	§ 1926.451(b)(14)
§ 1926.451(c)(13) .....	§ 1926.451(e)
Tables L-10 through 12 .....	§ 1926.451(a)(1)

##### *Paragraph 1926.452(c) Fabricated frame scaffolds.*

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirements in the existing paragraphs listed.

Proposed paragraph	Existing paragraph
§ 1926.452(c)(2) .....	§ 1926.451(d)(3)
§ 1926.452(c)(3) .....	§ 1926.451(d)(5)
§ 1926.452(c)(6) .....	§ 1926.451(d)(9)

Paragraph (c)(1) is new for fabricated frame scaffolds and would require that platforms not be moved until the next location is properly prepared to support the platform being moved. This would be done for the same reasons discussed for paragraph (b)(1).

Paragraph (c)(4) would require the locking together of end frames and is essentially the same as E § 1926.451(d)(6). The requirement would only apply where uplift forces are strong enough to displace the end frames or panels, such as when a hoist is being used that could snag the scaffold during a hoist operation.

Paragraph (c)(5) would specify the proper placement of platform support brackets. Improper placement of such cantilever supports can significantly reduce their support capacity and thus endanger employees working on top of the platform.

The following existing provisions would not be carried forward in this paragraph as specific provisions for fabricated frame scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(d)(1) .....	§ 1926.451(a)(1)
§ 1926.451(d)(2) .....	§ 1926.451(a)(1)
§ 1926.451(d)(4) .....	§ 1926.451(b)(15)
§ 1926.451(d)(7) .....	§ 1926.451(a)(14)
§ 1926.451(d)(8) .....	§ 1926.451(a)(1), Appendix A
§ 1926.451(d)(10) .....	§ 1926.451(e)

**Paragraph 1926.452(d) Plasterers', decorators', and large area scaffolds.**

Paragraph (d) would require that the provisions of proposed paragraphs § 1926.452 (a), (b), and (c) be followed, as paragraph (d) type scaffolds are almost always constructed using pole scaffolds, tube and coupler scaffolds, or fabricated frame scaffolds. The existing rule, E § 1926.451(q)(1), requires paragraph (d) type scaffolds to be built according to the existing rules for pole scaffolds only. The proposal, therefore, offers greater flexibility and choice of systems to be used, while maintaining employee safety.

The following existing provisions would not be carried forward in this paragraph as specific provisions for plasterers', decorators', and large area scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(q)(2) .....	§ 1926.451(b)(1)
§ 1926.451(q)(3) .....	§ 1926.451(c)
§ 1926.451(q)(4) .....	§ 1926.451(e)

**Paragraph 1926.452(e) Bricklayers' square scaffolds.**

Paragraphs (e) (1), (2), and (3) would require gussets, side braces, and system braces. These are essentially the same requirements as are contained in E

§ 1926.451(n) (3) and (4) except the specific requirements for the size of the members would be specified by § 1926.451(a)(1) and Appendix A.

Paragraph (e)(4) would limit the height of these scaffolds to three tiers and specifies the proper arrangement of the component parts. This is the same requirement as E § 1926.451(n)(6).

The following existing provisions would not be carried forward in this paragraph as specific provisions for bricklayers' square scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(n)(1) .....	§ 1926.451(a)(1)
§ 1926.451(n)(2) .....	§ 1926.451(a)(1)
§ 1926.451(n)(5) .....	§ 1926.451(a)(1)
§ 1926.451(n)(7) .....	§ 1926.451(b)(15)
Table L-15 .....	§ 1926.451(a)(1)

**Paragraph 1926.452(f) Horse scaffolds.**

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirements in the existing paragraphs listed.

Proposed paragraph	Existing paragraph
§ 1926.451(e)(1) .....	§ 1926.451(o)(1)
§ 1926.451(e)(2) .....	§ 1926.451(o)(4)
§ 1926.451(e)(3) .....	§ 1926.451(o)(5)
§ 1926.451(e)(4) .....	§ 1926.451(o)(5)

The following existing provisions would not be carried forward in this paragraph as specific provisions for horse scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(o)(2) .....	§ 1926.451(a)(1)
§ 1926.451(o)(3) .....	§ 1926.451(a)(1)
§ 1926.451(o)(6) .....	§ 1926.451(d)(4)
§ 1926.451(o)(7) .....	§ 1926.451(e)
Table L-16 .....	§ 1926.451(a)(1)

**Paragraph 1926.452(g) Form scaffolds and carpenters' bracket scaffolds.**

The existing standard, in paragraphs E § 1926.451 (m) and (x), addresses these types of scaffolds separately. However, the two types are very similar and the proposal would address them in this same paragraph.

Paragraph (g)(1) would specify the types of attachment devices or systems used for supporting the scaffold. These are the same as presently required by E § 1926.451 (m)(2), (x)(4)(ii), and (x)(5).

Paragraph (g)(2) would specify that wooden bracket form scaffolds be an integral part of the form panel. This is

the same provision as E § 1926.451(x)(6)(i).

Paragraph (g)(3) would require folding-type metal brackets to be secured against folding when extended for use. This is presently required by E § 1926.451(x)(5)(i).

The following existing provisions would not be carried forward in this paragraph as specific provisions for form and carpenters' bracket scaffolds because the topics they address would be covered by the proposed general rules as indicated.

Existing paragraph	Proposed paragraph
§ 1926.451(m)(1) .....	§ 1926.451(a)(1)
§ 1926.451(m)(3) .....	§ 1926.451(a)(1)
§ 1926.451(m)(4) .....	§ 1926.451(a)(1)
§ 1926.451(m)(5) .....	§ 1926.451(a)(1), § 1926.451(b)(5), § 1926.451(b)(6)
§ 1926.451(m)(6) .....	§ 1926.451(e)
§ 1926.451(x)(1) .....	§ 1926.451(a)(1)
§ 1926.451(x)(2) .....	§ 1926.451(a)(1), § 1926.451(b)(5), § 1926.451(b)(6)
§ 1926.451(x)(3) .....	§ 1926.451(d)(2)
§ 1926.451(x)(4) .....	§ 1926.451(a)(1), § 1926.451(b)(5), § 1926.451(b)(1), § 1926.451(b)(6)
§ 1926.451(x)(5) .....	§ 1926.451(a)(1), § 1926.451(b)(5), § 1926.451(b)(6), § 1926.451(e)
§ 1926.451(x)(6) .....	§ 1926.451(a)(1), § 1926.451(b)(5), § 1926.451(b)(6), § 1926.451(e)
Tables L-17, 18 and 19 .....	§ 1926.451(a)(1), § 1926.451(e)

**Paragraph 1926.452(h) Roof bracket scaffolds.**

Paragraphs (h) (1) and (2), specifying criteria for proper construction and installation, are the same requirements as E § 1926.451 (u)(1) and (u)(2). Existing paragraph § 1926.451(u)(3) which requires the use of catch platforms with guardrails for fall protection would be replaced by the general fall protection requirements of § 1926.451(e). If guardrails are used for fall protection, it is not necessary for them to be mounted on a catch platform. Therefore, no reference is made to catch platforms in the proposal although they may be used if the contractor so desires.

**Paragraph 1926.452(i) Outrigger scaffolds.**

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirements in the existing paragraphs listed.

Proposed paragraph	Existing paragraph
§ 1926.452(i)(1) .....	§ 1926.451(g)(1)
§ 1926.452(i)(2) .....	§ 1926.451(g)(1)
§ 1926.452(i)(3) .....	§ 1926.451(g)(1)
§ 1926.452(i)(4) .....	§ 1926.451(g)(1)

Proposed paragraph	Existing paragraph
§ 1926.452(i)(5).....	§ 1926.451(g)(2)
§ 1926.452(i)(6).....	§ 1926.451(g)(2)
§ 1926.452(i)(8).....	§ 1926.451(g)(3)

Paragraph (i)(7) would clarify the requirements of E § 1926.451(b)(4) by specifying the means by which the scaffold platform is to be attached to the outrigger beams.

The following existing provisions would not be carried forward in this paragraph as specific provisions for outrigger scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(g)(1) .....	§ 1926.451(a)(1)
§ 1926.451(g)(4) .....	§ 1926.451(b)(4), § 1926.452(i)(8)
§ 1926.451(g)(5) .....	§ 1926.451(e)
Table L-13 .....	§ 1926.451(a)(1)

**Paragraph 1926.452(j) Pump jack scaffolds.**

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirements in the existing paragraphs listed.

Proposed paragraph	Existing paragraph
§ 1926.451(j)(1).....	§ 1926.451(y)(2)
§ 1926.452(j)(3).....	§ 1926.451(y)(12)
§ 1926.452(j)(4).....	§ 1926.451(y)(13)
§ 1926.452(j)(5).....	§ 1926.451(a)(1), § 1926.451(y)(6)
§ 1926.452(j)(6).....	§ 1926.451(a)(1), § 1926.451(y)(7)
§ 1926.452(j)(7).....	§ 1926.451(y)(8)

Paragraph (j)(2) would require bracing to secure the poles to the structure on which the work is being performed, and would require that an additional brace be used whenever a brace must be removed to allow passage of the pump jack. These requirements are essentially the same as E § 1926.451(y)(4) (iii) and (iv), however, the specifications for pole spacing and brace capacity are not carried forward in this paragraph as they are covered by proposed general rule § 1926.451(a)(1).

The following existing provisions would not be carried forward in this paragraph as specific provisions for pump jack scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(y)(1).....	§ 1926.451(a)(1), § 1926.451(d)(2)
§ 1926.451(y)(3).....	§ 1926.451(b)(1)
§ 1926.451(y)(4) (i), (ii).....	§ 1926.451(a)(1)
§ 1926.451(y)(5).....	§ 1926.451(b)(15)
§ 1926.451(y)(9).....	§ 1926.451(c)

Existing paragraph	Proposed paragraph
§ 1926.451(y)(10).....	§ 1926.451(a)
§ 1926.451(y)(11).....	§ 1926.451(e)

**Paragraph 1926.452(k) Ladder jack scaffolds.**

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirements in the existing paragraphs listed:

Proposed paragraph	Existing paragraph
§ 1926.452(k)(1).....	§ 1926.451(s)(1)
§ 1926.452(k)(3).....	§ 1926.451(s)(3)
§ 1926.452(k)(4).....	§ 1926.451(s)(4)

Paragraph (k)(2) would require that all ladders used to support ladder jack scaffolds conform to the provisions of § 1926.1053 of proposed Subpart X—Stairways and Ladders. However, the paragraph would prohibit the use of job-made ladders to support ladder jacks because OSHA believes such ladders do not have the capacity to support the heavy point loading caused by ladder jack brackets.

Paragraph (k)(5) would prohibit the bridging of one ladder jack scaffold to another. This would be a new requirement and would be made to assure the stability of the system and to prevent accidental overloading of the system. This provision would not prohibit passage from one scaffold to another.

The following existing provisions would not be carried forward in this paragraph as specific provisions for ladder jack scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(s)(1).....	§ 1926.451(a)(1), § 1926.452(k)(1)
§ 1926.451(s)(5).....	§ 1926.451(a)(1), § 1926.451(b)(5)
§ 1926.451(s)(6).....	§ 1926.451(a)(1), § 1926.451(d)(2)

**Paragraph 1926.452(l) Window jack scaffolds.**

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirements in the existing paragraphs listed:

Proposed paragraph	Existing paragraph
§ 1926.451(l)(2).....	§ 1926.451(l)(1)
§ 1926.451(l)(3).....	§ 1926.451(l)(2)

Paragraph (l)(1) would require window jack scaffolds to be securely

attached to the window opening. This new requirement would assure that the scaffold cannot be accidentally displaced.

The following existing provisions would not be carried forward in this paragraph as specific provisions for window jack scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(l)(3).....	§ 1926.451(e)
§ 1926.451(l)(4).....	§ 1926.451(a)(1), § 1926.451(d)(2)

**Paragraph 1926.452(m) Crawling boards (chicken ladders).**

Paragraph (m)(1) would be the same requirement as is presently contained in the fourth sentence of E § 1926.451(v)(1), which specifies crawling board length. The remainder of E § 1926.451(v)(1) would be relocated to Appendix A since it would be effectively replaced by the capacity requirements of § 1926.451(a)(1). The requirement to clinch nails would be deleted since this procedure is often not feasible due to the inaccessibility of the nail points. Existing paragraph E § 1926.451(v)(2) would be replaced by the fall protection requirements of § 1926.451(e)(1).

**Paragraph 1926.452(n) Step, platform, and trestle ladder scaffolds.**

Although these types of scaffolds are not specifically addressed in the existing standard, they are covered by the existing general requirements. These types of scaffolds differ from ladder jack scaffolds in that the platform rests directly on the ladder step or rung, whereas ladder jack scaffold platforms rest on brackets. The following are new paragraphs that address concerns not presently covered by the existing standard. These new provisions are based on similar provisions currently being developed by ANSI. Paragraph (n)(1) would limit the height of the scaffold platforms to the second highest rungs or steps of ladders supporting the platform, and would provide increased scaffold stability by lowering the center of gravity.

Paragraphs (n) (2), (3), and (4) are the same provisions as for ladder jack scaffolds.

**Paragraph 1926.452(o) Single-point adjustable suspension scaffolds.**

This paragraph would combine existing paragraphs E § 1926.451(k), single-point adjustable suspension scaffolds, and paragraph E § 1926.451(l),

boatswains' chairs, as boatswains' chairs are a form of single-point adjustable suspension scaffold.

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirements in the existing paragraphs listed:

Proposed paragraph	Existing paragraph
§ 1926.452(o)(1) .....	§ 1926.451(k)(6)
§ 1926.452(o)(3) .....	§ 1926.451(l)(5)
§ 1926.452(o)(5) .....	§ 1926.451(j)(2)
§ 1926.452(o)(6) .....	§ 1926.451(j)(3)

Paragraph (o)(2) would be essentially the same as E § 1926.451(k)(7), and would require that all suspension ropes hang vertically. However, the proposal would provide an exception to this rule when the scaffold is to be used on the outside of a dome-type or slanted structure. The proposal would thus recognize the practical difficulties involved in such work under the existing rule. OSHA is soliciting comments on this rule in Issue Number 10.

Paragraph (o)(4) would be essentially the same as E § 1926.451(l)(2), and would require boatswains' chairs to be rigged with crossed supporting slings. However, the proposal would add that the slings be rigged (usually with knots) to prevent slippage which could result in the platform being out-of-level. This would increase the stability of the seat.

Paragraph (o)(7) would require non-cross laminated wood chairs to be reinforced on their underside by cleats. Existing rule E § 1926.451(l)(1) requires all chairs to be cleated. This proposed rule recognizes the strength qualities of plywood-type wood seats. The remainder of E § 1926.451(l)(1), specifying chair size, would be replaced by § 1926.451(b)(2).

The following existing provisions would not be carried forward in this paragraph as specific provisions for single-point adjustable suspension scaffolds as they would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(k)(1) .....	§ 1926.451(b)(28)
§ 1926.451(k)(2) .....	§ 1926.451(b)(29)
§ 1926.451(k)(3) .....	§ 1926.451(b)(30)
§ 1926.451(k)(4) .....	§ 1926.451(b)(31)
§ 1926.451(k)(5) .....	§ 1926.451(d)(3)
§ 1926.451(k)(8) .....	§ 1926.451(b) (17) through (31)
§ 1926.451(k)(9) .....	§ 1926.451(e)
§ 1926.451(l)(4) .....	§ 1926.451(e)
§ 1926.451(l)(6) .....	§ 1926.451(b)(20)

Existing rule E § 1926.451(k)(10), requiring additional unspecified rules of ANSI A120.1-1970 to be followed is proposed to be deleted. All rules in that ANSI document which OSHA believes

should apply to single-point adjustable suspension scaffolds have been identified and spelled out in this proposal for inclusion in the text of Subpart L.

*Paragraph 1926.452(p) Two-point adjustable suspension scaffolds*

This paragraph would apply to all two-point adjustable suspension scaffolds, except those used for mason's or stonemason's work which are covered by paragraph (q).

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirements in the existing paragraphs listed:

Proposed paragraph	Existing paragraph
§ 1926.452(p)(2) .....	§ 1926.451(j)(1)
§ 1926.452(p)(3) .....	§ 1926.451(i)(6)
§ 1926.452(p)(5) .....	§ 1926.451(i)(9)

Paragraph (p)(1) would be essentially the same as paragraph E § 1926.451(i)(1), which limits platforms to 36 inches wide. However, the proposal would allow wider platforms if they are designed by a qualified person to prevent unstable conditions.

Paragraph (p)(4) would require that scaffolds be ladder-type, plank-type, beam-type, or light metal-type, the same as required by E § 1926.451(i)(10). However, existing paragraph E § 1926.451(i)(10) (i) through (iv) would be replaced by the capacity requirements of § 1926.451(a)(1). Paragraph (p)(4) would also require light metal-type platforms to be tested and listed by a nationally-recognized testing laboratory. This is essentially the same requirement as E § 1926.451(i)(10)(iv), however, see the "Note" in the discussion above for paragraph § 1926.451(b)(28).

Paragraph (p)(6) would prohibit the bridging or connecting of two or more scaffolds during raising and lowering operations, unless they are specifically designed for use on multi-point systems; are articulated; and the hoists are properly sized. This provision would not prohibit passage from one scaffold to another. This rule reflects OSHA's concern that a bridging device could cause significant overloading of the hoist nearest the bridging device during operation of the hoist, and could cause excessive platform tipping. Many hoists are only sized to support one end of a two-point system. If one of two bridged scaffolds were to be raised by a hoist, a bridge or connection between the scaffolds could cause the rising scaffold to pick up the second scaffold also. This would significantly increase the load on the hoist and could also result in the

second scaffold tipping up at a dangerous angle. The proposed rule would address these two hazards and also allow for properly engineered solutions.

Paragraph (p)(7) would allow the passage of employees from one scaffold to another, provided the scaffolds are at the same height; are abutting closely; and walk-through stirrups are used.

Existing provision E § 1926.451(i)(2), requiring that hangers be made of mild steel (or equivalent) and designed to support guardrails, is deleted as there are other acceptable designs and ways to attach guardrail systems.

*Paragraph 1926.452(q) Multi-point adjustable suspension scaffolds, stonemason's multi-point adjustable suspension scaffolds, and masons' multi-point adjustable suspension scaffolds*

This section would combine and clarify the provisions of E § 1926.451(h), stonemason's adjustable multi-point suspension scaffolds, and E § 1926.451(j), masons' adjustable multi-point suspension scaffolds, and would clarify that the paragraph applies to other multi-point adjustable suspension scaffolds as well.

Paragraph (q)(1) would prohibit bridging between scaffolds unless they are specifically designed to be bridged. Paragraph (q)(2) would allow passage of employees between adjacent units only when the platforms are at the same height and abutting closely. The reasons for these paragraphs are the same as those for paragraphs (p) (6) and (7) above. Paragraph (q)(3) specifying the criteria for the support system is the same as E § 1926.451(j)(4), but would apply to masons' and other multi-points as well as stonemason's adjustable multi-point suspension scaffolds.

The following existing provisions would not be carried forward in this paragraph as specific provisions for multipoint, stonemason's, and masons' adjustable multi-point suspension scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(h)(1) .....	§ 1926.451(a)(1), § 1926.451(d)(2)
§ 1926.451(h)(2) .....	§ 1926.451(b)(28)
§ 1926.451(h)(3) .....	§ 1926.451(a)(2)
§ 1926.451(h)(4) .....	§ 1926.451(b)(19)
§ 1926.451(h)(5) .....	§ 1926.451(a)(1)
§ 1926.451(h)(6) .....	§ 1926.451(a)(1), § 1926.451(b)(18)(i)
§ 1926.451(h)(7) .....	§ 1926.451(b)(19)(ii)
§ 1926.451(h)(8) .....	§ 1926.451(b)(19)(i)
§ 1926.451(h)(9) .....	§ 1926.451(b)(17)
§ 1926.451(h)(10) <sup>1</sup> .....	§ 1926.451 (b)(24), (b)(22)
§ 1926.451(h)(11) .....	§ 1926.451(b)(19)(iv)
§ 1926.451(h)(12) .....	§ 1926.451(a)(1)

Existing paragraph	Proposed paragraph
§ 1926.451(h)(13)	§ 1926.451(e)(6)
§ 1926.451(h)(13)	§ 1926.451(e)(6)
§ 1926.451(h)(14)	§ 1926.451(b)(18)(i).
	§ 1926.451(d)(7)
§ 1926.451(h)(15)	§ 1926.451(e)
§ 1926.451(j)(1)	§ 1926.451(a)(1).
	§ 1926.451(d)(2)
§ 1926.451(j)(2)	§ 1926.451(b)(28)
§ 1926.451(j)(3)	§ 1926.451 (b)(5), (b)(6)

<sup>1</sup> Fiber rope would not be prohibited by the proposal because § 1926.451(a)(1) would require that adequate sized fiber rope be used; § 1926.451(d)(3) would require regular inspection of the rope; and § 1926.451(d)(4) would require the removal of any defective or damaged rope.

Existing paragraph	Proposed paragraph
§ 1926.451(j)(4) <sup>1</sup>	§ 1926.451 (b)(19), (b)(20)
§ 1926.451(j)(5)	§ 1926.451 (b)(19)(iii), (b)(18), (b)(19)(i)
§ 1926.451(j)(6)	§ 1926.451 (a)(2), (a)(1)
§ 1926.451(j)(7)	§ 1926.451 (b)(24), (b)(22)
§ 1926.451(j)(8)	§ 1926.452 (c)(1), (c)(2)
§ 1926.451(j)(9)	§ 1926.451(e)

<sup>1</sup> The proposal would allow the use other equivalent materials for suspension supports, and not require only metal outriggers, iron brackets, wire rope slings, and iron hooks.

#### Paragraph 1926.452(r) Catenary scaffolds

Although this type of scaffold is not specifically addressed in the existing standard, it is covered by the existing general provisions. The following are new provisions that address concerns not presently covered by the existing standard. These new provisions would be essentially the same as existing ANSI A10.8-1977, paragraph 22, except the specifications contained in that standard would be replaced by proposed paragraph § 1926.451(a).

Paragraph (r)(1) would allow only one platform between vertical pickups, in order to minimize the danger of overloading the system. For the same reason, only two platforms would be allowed on the entire system.

Paragraph (r)(2) would require the platforms to be equipped with hook-shaped stops on each end to prevent the platform from falling should one of the two horizontal support ropes break.

Paragraph (r)(3) would prohibit the horizontal support ropes from being made so taut that use of the platform could cause them to break.

Paragraph (r)(4) would require each horizontal wire rope support to be continuous and unspliced.

#### Paragraph 1926.452(s) Float (ship) scaffolds

Paragraphs (s)(1), (s)(2), and (s)(3) would require the scaffold to consist of at least two bearers with six inch projections, securely connected to the platform. Rope connections must be such that they will not slip nor cause the platform to tip or fall. If two ropes are used, they shall be slung under the scaffold and up to the supports. These

requirements are essentially the same as are required by E § 1926.451(w) (3) and (5).

The following existing provisions would not be carried forward in this paragraph as specific provisions for float scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(w)(1)	§ 1926.451(a)(1).
	§ 1926.451(d)(2)
§ 1926.451(w)(2)	§ 1926.451(a)(1)
§ 1926.451(w)(4)	§ 1926.451(e)(7)(ii)
§ 1926.451(w)(5)	§ 1926.451(a)(2)(iv).
	§ 1926.451(d)(4)
§ 1926.451(w)(6)	§ 1926.451(e)

#### Paragraph 1926.452(t) Interior hung scaffolds.

Paragraph (t)(1) would require that scaffolds be suspended only from the roof structure or other structural members such as ceiling beams. This is the same requirement as existing rule E § 1926.451(r)(1).

Paragraph (t)(2) would require that the supporting members be inspected and checked for strength before the scaffold is erected. Such points of support cannot be assumed to be strong enough to support a scaffold since they may be already loaded to their capacity or they may have deteriorated over time.

Paragraph (t)(3) would delete the specific connection requirements of E § 1926.451(r)(2), which OSHA believes are obsolete, and specifies what OSHA considers to be current safe practices. The strength requirement of E § 1926.451(r)(2) would be covered by § 1926.451(a)(3).

The following existing provisions would not be carried forward in this paragraph as specific provisions for interior hung scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(r)(2)	§ 1926.451(a)(2).
	§ 1926.452(i)(3)
§ 1926.451(r)(3)	§ 1926.451(a)(1)
§ 1926.451(r)(4)	§ 1926.451(a)(1)
§ 1926.451(r)(5)	§ 1926.451(e)

#### Paragraph 1926.452(u) Needle beam scaffolds.

The following table lists the proposed paragraphs which would not be substantively changed from the

corresponding requirement in the existing paragraphs listed:

Proposed paragraph	Existing paragraph
§ 1926.452(u)(1)	§ 1926.451(p)(1)
§ 1926.452(u)(2)	§ 1926.451(p) (2) and (8)
§ 1926.452(u)(4)	§ 1926.451(p)(4)

Paragraph (u)(3) would require that support ropes be securely attached to the needle beams. This is a change from E § 1926.451(p)(3), which requires all attachments to be either a scaffold hitch knot or eye splice. The existing rule is believed by OSHA to be too restrictive as other knots and means of attachment, such as wire rope clips, can also adequately support the scaffold.

Paragraph (u)(5) would require platform units to be bolted to the needle beam, or equivalent means of attachment used such as nails, to prevent the displacement of the units. This is a clarification of E § 1926.451(p)(6) which only requires that planks be secured against slipping. Under the existing rule, cleats and overhang could be used to secure the units. However, OSHA does not believe that cleats or overhang are adequate measures to secure platform units on needle beam scaffolds.

#### Paragraph 1926.452(v) Multi-level suspended scaffolds

Although these types of scaffolds are not specifically addressed in the existing standard, they are covered by the existing general requirements. These scaffolds are suspended scaffolds with more than one working level. The following provisions address concerns not presently covered by the existing standard.

Paragraph (v)(1) would require independent support lines in addition to the regular support ropes. These additional lines would support the scaffold and prevent collapse in the event of primary support line failure. The reasons for requiring these lines are given in the discussion for paragraph § 1926.451(e) which covers fall protection. Because the primary support lines could fail anywhere between the scaffold and their point of anchorage (the anchorage itself could fail), paragraph (v)(2) would prohibit attaching independent support lines and suspension ropes to the same anchorage point. Paragraph (v)(3) would prohibit platforms from being supported by any other platform(s). This provision would protect against platform overloading by requiring each platform to be attached to the supporting stirrups or hangers.

*Paragraph 1926.452(w) Mobile scaffolds.*

This section would consolidate and clarify the provisions of E § 1926.451(e) and § 1910.29 of the general industry standards. This paragraph would apply to all mobile scaffolds and not just to those which are manually propelled.

The following table lists the proposed paragraphs which would not be substantively changed from the corresponding requirements in the existing paragraphs listed:

Proposed paragraph	Existing paragraph
§ 1926.452(w)(1).....	§ 1926.451(e)(3), § 1926.451(e)(9)
§ 1926.452(w)(1)(i).....	§ 1926.451(e)(9)
§ 1926.452(w)(1)(ii).....	§ 1926.451(e)(9)
§ 1926.452(w)(2).....	§ 1926.451(e)(2)
§ 1926.452(w)(5).....	§ 1926.451(e)(6)
§ 1926.452(w)(6).....	§ 1926.451(e)(7)

Paragraph (w)(3) is essentially the same as E § 1926.451(e)(6) which requires that propelling forces be applied as close to the base as possible. However, the proposal would limit the height at which the force could be applied to five feet to minimize overturning forces.

Paragraph (w)(4) is a new provision and would eliminate the use of winches, forklifts, trucks, or other motor vehicles to move scaffolds which are not designed to be moved by such propulsion systems.

Paragraph (w)(6)(iv) is a new provision and would require the propelling force be applied directly to the wheels (not to the frame) when power systems are used to propel scaffolds, and would limit the speed of the scaffold to two feet per second. This provision is to protect against a scaffold toppling over should it strike an object.

Paragraph (w)(6)(v) is a new provision and would prohibit employees from riding on any part of a moving scaffold which extends outward beyond the wheels, casters, or other support.

Paragraph (w)(7) would require scaffold platforms not to extend outward past the base supports of the scaffold. This provision would eliminate dangerous eccentric loading on the scaffold frame which could cause the scaffold to tip over. However, if stabilizing means such as outrigger supports are used, then the platform may extend outside the normal base points of support.

Paragraph (w)(8) would require that screw jacks or equivalent means be used to level mobile scaffolds when they are set up for stationary use. This would be a specific way of complying with § 1926.451(b)(15) of the proposed general rules requiring firm, level foundations.

Paragraph (w)(9) would be new paragraph and would require caster and wheel stems to be secured to scaffold frames to prevent them from falling out at any time.

The following existing provisions would not be carried forward in this paragraph as specific provisions for mobile scaffolds because the topics they address would be covered by the proposed general rules as indicated:

Existing paragraph	Proposed paragraph
§ 1926.451(e)(1).....	§ 1926.451(b)(14)
§ 1926.451(e)(2).....	§ 1926.451(a)(1), § 1926.452(w)(2)
§ 1926.451(e)(4).....	§ 1926.451(b)(1)
§ 1926.451(e)(5).....	§ 1926.451(c)(1), (c)(2), (c)(3)
§ 1926.451(e)(8).....	§ 1926.451(b)(15), (b)(16), § 1926.452(w)(2)
§ 1926.451(e)(10).....	§ 1926.451(e)

The coverage of general industry provision E § 1910.29, Manually propelled mobile ladder stands and scaffolds (Towers), which is currently applicable to construction activities, would be replaced by the proposed provisions contained in § 1926.451 (a), (b), (c), (d), (e), and § 1926.452(w). Those elements of E § 1926.1910.29 which apply to construction, and which are incorporated into the proposal, have been identified and discussed above.

*Elevating and rotating work platforms.* Existing paragraph E § 1926.451(f), Elevating and rotating work platforms, is proposed to be deleted in its entirety as it is redundant of the provisions contained in E § 1926.556.

*Section 1926.460 Training requirements.*

This section would be in addition to the training requirements of E § 1926.21, however, the provisions may be cited only when one or more citations are issued under the other provisions of Subpart L. This section clarifies the types of hazards to be addressed in all training programs given to employees working on scaffolds. Paragraphs (a), (b), and (c) would specify who must get what training, and paragraph (d) would specify how often training must be conducted. Scaffolds are only safe when they are designed, built, located, and used properly. These goals are most effectively achieved by proper training. This section contains requirements as to how the requisite training should be performed, however, it would not specify the details of the training program. Instead, it would require employees to be instructed in the proper way to build, use, place, and maintain scaffolds in order to minimize the hazards involved when building, operating, or working on scaffolds. In

this way, the section would provide flexibility for the employer in designing the training program.

The proposal would require that training be provided for each employee as necessary. OSHA requests comments on the frequency of training in Issue Number 15.

*Appendix A to Subpart L—Scaffold specifications*

As explained in the discussion for proposed § 1926.451(a), Capacity, Appendix A is a non-mandatory set of guidelines and tables provided to assist employers in complying with the requirements of § 1926.451(a). While these tables and guidelines are non-mandatory, a scaffold will be deemed by OSHA to meet the requirements of § 1926.451(a) if a contractor uses these tables and guidelines to build and load the scaffold. The provisions are essentially the same as found throughout the existing standard. However, if the employer chooses to deviate from any provisions or guidelines in the Appendix, or if the employer constructs a component (such as joint connection) for which there is no provision or guideline, then the burden is on the employer to show compliance with paragraph § 1926.451(a).

*Specific issues.* The public is specifically requested to comment on the following issues.

1. The preamble identifies the provisions in the standard which are new or which are changed from the provisions of the existing standard. OSHA believes that many employers are already following many of these revised provisions. However, OSHA will evaluate, on the basis of all the evidence submitted to the public record, the likely effectiveness of the proposed revised and new provisions and will include in the final rule only those revised and new requirements for which a significant reduction in the risk of incurring injuries or fatalities would be supported by the final record. Hence, the following issues are raised:

(a) Public comment is requested on the current level of practice which meets the requirements of the proposed changes;

(b) Public comment is requested on the practicality and feasibility of the proposed changes, and whether implementation of the proposed changes will reduce the occurrence or severity of accidents;

(c) Public comment is requested on the amount of any costs or savings which have not been identified by OSHA (see Section IV of this preamble—

Preliminary Regulatory Impact Assessment and Regulatory Flexibility Analysis) which might result from the proposed changes;

(d) Public comment is requested on the availability and content of accident reports which indicate that the proposal does not properly address scaffold hazards.

2. Is there a need for OSHA to regulate the use of electric welding equipment on suspended scaffolds? Should OSHA adopt the following rules which are presently being developed and evaluated by the ANSI A10.8 Scaffold Committee?

To reduce the possibility of the welding current arcing through the wire rope when welding from suspended scaffolds, the following precautions shall be taken:

(a) Use a suitable insulated thimble to attach each wire rope to its hanging support (such as a cornice hook or outrigger). Insulate extra rope from grounding.

(b) Cover the suspension wire rope with insulating material approximately four to five feet above the hoist, and below the hoist extending downward sufficiently to insulate the tail line from the unit. The portion of the tail line that hangs free below the unit must be guided and/or retained such that it does not become grounded.

Place non-conducting insulating material under wire rope so that it does not come in contact with ground.

(c) Cover each hoist with protective covers made from insulating material.

(d) Connect a grounding conductor from the unit to the structure. The size of this conductor must be equal to or greater than the size of the welding machine grounding lead and shall be a secondary conductor and must not be in series with the primary conductor between the welder and the work piece.

(e) If unit grounding lead is disconnected at any time, welding machine shall be turned off.

(f) At no time shall active welding rod or uninsulated welding lead be allowed to contact the stage or its supporting system.

3. Should OSHA develop rules prohibiting the use of cranes, derricks, forklifts, front-end loaders, and similar pieces of equipment for the support of scaffold platforms? If such rules should be developed, what pieces of equipment should be prohibited and what other related rules, if any, are necessary? Comments should include appropriate injury and cost data.

4. Existing rule § 1926.451(e)(7)(ii) requires manually-propelled mobile scaffolds to be not more than twice as high as they are wide when employees

ride on them. Proposed rule § 1926.452(w) extends this rule to cover both manually-propelled and motor-propelled mobile scaffolds. Should OSHA raise the current 2 to 1 ratio to 3 to 1 or higher on those systems which are built with a lower center-of-gravity. If this change is made, what limitations are appropriate?

5. Should OSHA require all platform units (planks, decks, etc.) to have their capacities or grades marked on them? Arguments in favor of this are that such marks could help prevent the use of inferior grades of plank in platforms, and that they would aid the user in determining the maximum load which can be placed safely on the plank or other unit. Arguments against this are that such marks can wear off, or units can deteriorate making the marks no longer valid, and the absence of a mark would be a citable violation regardless of the strength of the platform unit. Also, although such marks can be very useful in the construction of a safe scaffold, their presence or absence do not, in themselves, make a plank safe or unsafe.

6. Proposed paragraph § 1926.451(d)(11) would prohibit work on scaffolds during storms or when wind speeds exceed 40 mph, unless body belts are worn or wind screens erected. Comment is requested on the 40 mph limit, and on how to measure the windspeed. Recommendations on windspeed measurement range from monitoring hourly radio weather reports to placing anemometers on every scaffold. OSHA also solicits comments on other methods that might be used to provide employee safety in high winds.

7. Existing rule § 1926.451(i)(9) and proposed rule § 1926.452(p)(5) require two-point adjustable suspension scaffolds to be secured to prevent swaying. Should OSHA extend this rule to cover all suspended scaffolds?

8. Should proposed rule § 1926.451(e)(1), which provides that fall protection is not required for employees performing scaffold erection and dismantling operations, apply only to supported scaffolds? Such scaffolds often do not have a convenient or feasible place to which body belt/harness systems can be attached. However, suspended scaffolds are often located such that droplines can be conveniently used and, therefore, employees could be tied off.

9. With respect to pump-jack scaffolds:

(a) Should OSHA require mending plates on all spliced wood poles?

(b) Should the bottom brace requirement for poles be deleted (see proposed rule § 1926.452(j)(2))?

10. Existing rule § 1926.451(k)(7) requires the supporting rope for single-point adjustable suspension scaffolds to be vertical. The proposed rule, § 1926.452(i)(2), would allow an exception when the scaffold is used on the outside of a dometype or slanted structure. Should some deviation from vertical be allowed when suspending a scaffold under a curved surface? If yes, what should be the maximum angle permitted, and what other conditions, if any, should be specified?

11. A recent Bureau of Labor Statistics' study indicates that of all injuries which result from falls, a high percentage involve falling from the five to 10 foot level (Ex. 12:9). In addition, a high percentage of falls occur while the employees were on scaffolds (Ex. 12:9). In light of this information, should the 10 foot maximum height allowed without fall protection be changed to some other limit? If so, why, and what should the new limit be?

12. Should OSHA adopt the existing ANSI standard, A10.8-1977, paragraph 3.3, which specifies that guardrails on all scaffolds be installed no less than 36 inches above the work platform? Existing OSHA regulation § 1926.451(a)(5) *et al.* specifies that guardrails be ". . . approximately 42 inches high . . ." which has been interpreted by OSHA to mean a range of 39 inches to 45 inches above the work platform. For the reasons discussed in the Summary and Explanation section of this preamble, the proposed standard would set the range of acceptable guardrail height at 38 inches to 45 inches for supported scaffolds, and would allow 36-inch high guardrails only for certain types of suspended scaffolds.

The ANSI A10.8 subcommittee on scaffolds considers the 36-inch lower limit to address adequately the hazard of falling from all types of scaffolds. This position is strongly supported by the Scaffold Industry Association (SIA). Their conclusions are based on the argument that OSHA's existing and proposed rules are based on studies (Exs. 9 and 10) which evaluated proper guardrail height for permanent structures, large areas where crowd control is important, and areas where high body speeds and momentum commonly are generated. These conditions, it is argued, do not exist on scaffolds and, therefore, the OSHA regulations are too restrictive and not appropriate for scaffold work. The SIA's conclusion is that a lower limit of 36 inches on scaffolds is as effective as a lower limit of 39 inches for permanent and large area structures. In addition, industry representatives state that no

accident statistics, nor other field studies, indicate any problem caused by the current industry practice of using 36-inch high guardrails. Comment is requested on the effectiveness and cost savings of a 36-inch lower limit for guardrail height, and whether requiring a higher limit would present feasibility problems.

13. Should OSHA accept crossbracing on the intermediate levels of built-up scaffolds as an alternative to the existing and proposed rules requiring guardrail systems on such levels? Are crossbraces as effective in providing fall protection as conventional guardrail systems? The existing and proposed OSHA rules do not recognize crossbracing as an effective guardrail-type system for preventing falls. However, the SIA and other interested groups support the contention that, within limits, crossbracing can effectively perform as a guardrail-type system. Their position is that depending on the height of the cross point of the braces, crossbracing can effectively serve as a toprail, midrail, or in some situations, as both toprail and midrail. This position is supported to a degree by a study conducted by the University of Michigan (Ex. 10:37). However, an earlier study, also conducted by the University of Michigan (Ex. 6:143), provides no support for this concept.

The industry position that crossbracing can be as effective as guardrails is based on views similar to those discussed in Issue Number 12 above. Industry argues that the studies on which the requirements for guardrail systems are based do not properly reflect actual field conditions or accident statistics. For example, the Michigan study (Ex. 6) states there should be no opening in a guardrail or crossbrace system that would allow passage of a 19-inch sphere (19 inches is slightly less than the shoulder width of the 95th percentile U.S. adult male population). The industry position is that it is not a fair representative to equate a human body with a 19-inch sphere.

The specific provisions suggested by industry representatives for adoption by OSHA are as follows:

(a) Crossbracing on supported scaffolds may be used in lieu of a midrail provided the crossing point of the two braces is at or between 31 inches and 20 inches above the work surface.

(b) Crossbracing on supported scaffolds may be used in lieu of midrails and toprails provided the cross point of the two braces is at or between 48 inches and 30 inches above the work surface, and the end points at each

upright are not more than 54 inches apart.

(c) Crossbracing may not be used in lieu of either a toprail or midrail on the top level of any supported scaffold.

The following have also been suggested as appropriate provisions:

(a) Crossbracing on supported scaffolds may be used in lieu of a toprail provided the crossing point of the two braces is at or between 39 inches and 49 inches above the work surface, and the end points at each upright are not more than 54 inches apart.

(b) Crossbracing on supported scaffolds may be used in lieu of midrails provided the crossing point of the two braces is at or between 30 inches and 20 inches above the work surface.

(c) Crossbracing may not be used in lieu of either a toprail or midrail on the top level of any supported scaffold.

(d) Crossbracing on supported scaffolds may not be used in lieu of both a toprail and midrail on the same scaffold level at the same time.

Comments and data reflecting engineering analyses and actual experience in the use of crossbracing are requested on the effectiveness of crossbracing when used in lieu of toprails, midrails, or both.

14. Should OSHA adopt a provision that would require mobile scaffolds to be moved only along their longitudinal axis while employees are riding on them? This provision, recommended by the ACCSH, is intended to maximize scaffold stability during movement, as tipping is most likely to occur when scaffolds are moved along their transverse axis.

15. Proposed rule § 1926.460(d) would require training and retraining as necessary for all employees using scaffolds. Public comment is requested on whether a more specific requirement or a less specific requirement such as that found in existing § 1926.21, would be appropriate. OSHA intends to include in the final rule only those training requirements for which a significant reduction in the risk of incurring injuries or fatalities would be supported in the final record.

Public comment is also requested on what training programs are currently available, who is providing them, and their cost. To the extent possible, examples of both adequate and inadequate training programs should be provided, with examples of how inadequate training may have contributed to unsafe conditions.

Companies, unions, trade associations, and other organizations conducting training programs also are encouraged to submit data concerning the safety records of employees who

have undergone training. For example, have companies which have instituted training programs experienced a decrease in accidents compared to the situation existing before training was started?

Information concerning the costs of training and how such costs may be offset by more efficient and/or safe operations is also requested. Although OSHA believes safety training is necessary and beneficial, comments have been received that raise the following concerns:

What level of specificity should OSHA require in a training program? What are the necessary elements of a training program? Can the more general training requirements contained in § 1926.21 be effective in providing employees with adequate training or are the more specific requirements in this proposal necessary?

Do employers or employees believe that training is too costly for the benefits it yields? If OSHA should not require training at all, is there a basis for predicting if training efforts will decrease, increase, or stay at present levels? Would employers, employees, or other interested parties support the omission of the training requirement proposed for this subpart? Do data, eyewitness, and anecdotal evidence exist which may constitute support for OSHA's not requiring training?

Comments are also requested on whether or not training should be required to be provided in specific sessions devoted to an overall view of safety issues likely to be encountered, or are on-the-job sessions, limited to isolated safety concerns as they are encountered, sufficient to insure safety?

In addition, OSHA requests comments on whether compliance with these proposed training requirements could be practicably accomplished without keeping records. Do these proposed training requirements, as written, impose an implicit recordkeeping burden on employers? Data on the cost and time necessary for keeping training records, if any, are requested.

16. Proposed rule § 1926.451(d)(3) would require scaffolds and scaffold components to be inspected for visible defects prior to each workshift and after any occurrence which could affect a scaffold's structural integrity. Public comment is requested on whether or not the daily period of time is appropriate or if some lesser or greater period should be required.

17. Should OSHA specify a minimum slippage capacity of 4,000 pounds and a minimum breakage capacity of 16,000 pounds for couplers used on tube and

coupler type scaffolds? Industry proponents argue that such a rule is necessary to assure proper scaffold strength.

18. The proposed requirements do not limit the height at which single-point adjustable suspension scaffolds and two-point adjustable suspension scaffolds may be used. Should OSHA limit the height at which those scaffolds may be used? If so, what should this height be, and why?

19. Some single-point adjustable suspension scaffolds which are currently in use have two separate lines (one serves as an independent support line) attached to two separate anchor points; however, both lines are connected to a single point on the body support system. A failure of this single body support mechanism, or body support system, could result in an uncontrolled fall for the employee. Should OSHA permit the use of such a system in which the lifeline and support line connect to a single mechanism or body support system? If so, what criteria should be used to assure the reliability of the single mechanism or body support system to prevent failures? What has been the experience with this type of system?

20. Should OSHA prohibit or regulate the use of stilts? Proponents for such a rule should include accident data in their comments. If stilts should be allowed, comments are requested on appropriate regulations, if any, regarding their construction, use, fall protection (i.e., higher guardrails), floor conditions (i.e., level, no holes, no debris), and other necessary considerations.

21. Existing rule § 1926.451(a)(7) and proposed rule § 1926.451(a)(1), require scaffolds to be capable of supporting, without failure, at least four times the maximum intended load. OSHA recognizes that field testing of scaffolds and scaffold components with loads four times greater than the maximum intended load could permanently damage and render useless the item being tested. Public comment is requested on appropriate field test procedures or certifications for determining the capacity of scaffolds and scaffold components such as planks and ropes.

22. Existing rule § 1926.451(y)(4)(iii) and proposed rule § 1926.462(j)(2) require pumpjack scaffolds to be equipped with braces at the top and bottom, and at other points as necessary. Public comment is requested on whether or not the bottom brace should be required at all times. Comments should include appropriate engineering, cost, and injury data, and

should address the type of surface the scaffold is on (i.e., sloping, level, soft ground, concrete, etc.).

23. Paragraph 1.(b) of Appendix A requires wood scaffold planks to be selected using the grading rules established by a recognized independent inspection agency for the species of wood used. Public comment is requested on whether or not a more specific requirement should be stated, and, if so, what should that requirement be?

24. Existing paragraphs E § 1926.451 (b)(16), (c)(4), (c)(5), (d)(9), and (g)(3) require specified types of scaffolds to be designed by an engineer when the scaffold to be built will exceed the limits set forth in existing Tables L-4 through L-13. Proposed rules § 1926.451(b)(18)(i) and § 1926.452 (a)(10), (b)(10), (c)(6), and (i)(8) also require specified components and scaffold types to be designed by an engineer when proposed Appendix A is not followed. However, there may be situations in which Appendix A could be safely modified by qualified persons other than registered professional engineers. A qualified person may be able to safely modify the Appendix A requirements for certain scaffolds, for example, tube and coupler scaffolds less than 125 feet in height. Are there situations in which scaffolds not built or loaded in accordance with Appendix A could be safely designed by a qualified person rather than an engineer? Are there situations in which only an engineer will be able to safely modify Appendix A? Also, while the existing tables and proposed Appendix A specify the minimum size for many components, neither standard sets forth guidelines for every component used on scaffolds such as, but not limited to, base plates, splice plates, joints, ties, and braces (the proposed rule, however, does specifically require all such components to meet the 4:1 capacity provision).

Public comment is requested on whether or not an engineer's services are needed to design all components not presently included in the tables and guidelines of Appendix A. If not, OSHA requests information on the additional criteria which should be added to Appendix A in order to provide complete tables and guidelines.

In addition, OSHA requests public comment on whether or not there are other types of scaffolds, or conditions (such as evaluating the support system for interior hung scaffolds), in addition to those already covered, where it would be appropriate to require the services of an engineer. If the services of an engineer are not necessary, what are the training and experience factors an

individual must have before being allowed to design a scaffold system?

25. In some of the existing provisions and in some of the proposed provisions, OSHA uses specific numerical limits to define and clarify the duties set forth. For example, E § 1926.451(a)(7) and proposed rule § 1926.451(a)(1) require that scaffold components have a factor of safety of at least 4:1. Other examples include: proposed requirement § 1926.451(c)(7) which restricts direct access to scaffolds to those situations where the open distance between scaffold and building is not more than 14 inches horizontally and 24 inches vertically; and requirement § 1926.451(c)(1)(iii) which requires rest platforms at 20-foot maximum intervals. These and other limits are based on existing laws and consensus standards, and are used in lieu of more performance-oriented language such as "scaffold components shall be strong enough to properly support the loads imposed on them;" or "direct access shall be used only where the building and the scaffold are close enough to provide safe access;" or language which requires a numerical limit but then allows other configurations which give "equivalent" protection. OSHA believes that although such performance-oriented language would be less restrictive on employers, and thus give them more options when abating a hazard, it does not always tell the employer exactly what is required (i.e., how to do something "right"). On the other hand, requiring specific numerical limits in the rule and allowing the employer to use other limits which the employer can show will provide "equivalent" protection may respond to both these concerns. OSHA believes that the use of specific limits in certain provisions (such as those listed above, and those for guardrail heights, minimum platform widths, and similar requirements) provides the required notice to employers as to how they can comply with a provision compared to how OSHA intends to enforce the provision. OSHA believes that such notice serves to inform employees and employers about the proper way to do things; promotes consistency in hazard abatement at all worksites; and also minimizes legal disputes over the intent of a requirement. On the other hand, specification language can increase costs without increasing safety, discourage technical innovation, prevent the use of safe alternatives, and fail to anticipate the varying needs and situations in the numerous workplaces covered by the standard.

Public comment is requested on whether or not OSHA's use of specification language is appropriate, or if it should be moved to a non-mandatory appendix which could provide guidance to employers. If not, how should the provisions be written to provide the desired flexibility and the required fair notice? If the continued use of such limits is appropriate, are the proposed limits sufficient to abate the hazards? Comments should include appropriate cost and injury data.

26. Paragraph § 1926.451(b)(18)(ii) requires that counterweights be made of non-flowable solid materials. Should OSHA also require that counterweights be designed for no other purpose than to counterweigh the system, thereby prohibiting the use of construction materials, such as concrete masonry units, rolls of felt, etc., as counterweights? Comments should include accident and cost data.

27. Paragraph § 1926.451(b)(32) requires manually-powered hoists to be built such that they require a positive crank force to lower the scaffold. This would eliminate the dangerous condition of "free-running" hoists during descents. Public comment is requested on the need for this requirement.

28. Public comment is requested on whether landing platforms should be required at 35-foot maximum intervals as required by E § 1926.451(e)(5), or at 20-foot maximum intervals as required by proposed rule § 1926.451(c)(2)(iii).

29. Paragraph § 1926.451(d)(13) prohibits the use of ladders or makeshift devices to raise the working level of employees. Public comment is requested on the need for this requirement.

#### IV. Preliminary Regulatory Impact Assessment and Regulatory Flexibility Analysis

##### *Introduction and Summary*

In accordance with Executive Order No. 12291 (48 FR 13193, February 17, 1981), OSHA has analyzed the economic impact of this proposed standard. Under the criteria established in E.O. 12291, OSHA has determined that the promulgation of this proposed standard would be a "minor" action, because the expected costs of full compliance with the proposed standard would be approximately \$2.636 million less in the first year and \$7.657 million less each year thereafter than full compliance with the existing standard.

##### *Affected Industries and Population at Risk*

The entire construction industry would be affected by the proposed changes in the existing Subpart L in

view of the extensive use of scaffolds in all sectors of the industry. In terms of the two-digit Standard Industrial Classification (SIC) codes, OSHA has determined that the proposal could potentially affect all firms in SIC's 15, Building Construction—General Contractors and Operative Builders; SIC 16, Construction Other Than Building Construction—General Contractors; and SIC 17, Construction—Special Trades Contractors. The majority of business firms classified under SIC 17 are subcontractors to the general contractors classified under SIC's 15 and 16. Rather than classifying these sectors by their two-digit SIC designations, OSHA has used the type of finished construction product as the basis for classifying the construction industry into the following four general sectors:

- a. Single-family housing,
- b. Residential, except single-family housing (e.g., hotels, apartments),
- c. Non-residential (e.g., commercial and institutional buildings), and
- d. Heavy construction (e.g., bridges, utilities).

In 1977, there were approximately 456,000 individual contractors affected by Subpart L.

OSHA has estimated that of the approximately 4 million construction workers, 3.8 million frequently work on scaffolds. In fact, of all the construction trades, only roofers and earth diggers do not frequently use some type of scaffold. It is quite likely that the amount of scaffold use would differ among different types of construction trades, although there are no available data that could quantify these differences.

##### *Significance of Risk*

OSHA estimated that the percentage of all occupational injuries that are injuries in construction due to falls from scaffolds is between 0.19 percent and 0.39 percent, with a mean of 0.29 percent. Applying this range to the 5,956,000 occupational injuries reported in the 1979 Occupational Injuries and Illnesses Report (Ex. 11), OSHA estimated that the number of injuries in construction due to falls from scaffolds was between 11,320 and 23,230, with a mean of 17,275. Of these injuries, between 5,140 and 10,545 with a mean of 7,845 were lost workday injuries and between 6,180 and 12,685 with a mean of 9,430 were non-lost workday injuries. OSHA also estimated that the number of lost workdays in construction due to falls from scaffolds would be between 92,520 and 189,810, with a mean of 141,210.

In addition, OSHA determined that there would be between 45 and 60

yearly fatalities in construction associated with falls from scaffolds.

Consequently, OSHA concluded that the construction injuries and fatalities due to falls from scaffolds are significant and merit effort to reduce their numbers.

##### *Feasibility, Benefits, and Costs*

OSHA has determined that the proposed revision of Subpart L would be technologically feasible because it would permit the use of readily available technology and equipment.

Benefits from the proposal would accrue to those workers who are at risk from current practices involving scaffolds in the construction industry. OSHA has also determined that full compliance with the proposed standard would prevent from 29 to 38 fatalities, from 8,310 to 17,190 injuries (from 3,805 to 7,805 of which would have been lost workday injuries and 4,575 to 9,385 would have been non-lost workday injuries), and from 68,490 to 140,490 lost workdays. OSHA has determined that full compliance with the existing standard would prevent from 25 to 33 fatalities, from 8,155 to 16,725 injuries (from 3,700 to 7,590 of which would have been lost workday injuries and from 4,450 to 9,135 would have been non-lost workday injuries), and from 66,000 to 136,620 lost workdays. Under conditions of full compliance, therefore, the proposed standard would be more protective than the existing standard as from four to five more fatalities would be prevented, from 225 to 465 more injuries would be prevented (of which 105 to 215 would be lost workday injuries and 120 to 250 would be workday injuries), and from 1,890 to 3,870 fewer workdays would be lost.

OSHA does not endorse any particular estimate for the value of an employee's life. For illustrative purposes, however, OSHA used two methods to estimate the monetary value of the benefits that would result from implementation of the standard. The first method, known as the "human capital" approach, estimates directly the foregone earnings and medical costs associated with an occupational injury or death. Lost production and medical costs to society, however, are the minimum benefits resulting from the prevention of an occupational injury. The other method of estimating benefits is based on the willingness-to-pay concept. Willingness-to-pay is the theoretical amount that the beneficiaries of a program would be willing to pay in order to obtain the benefits of the program or, in an occupational safety context, what a group of workers would

pay to reduce the probability of a death or injury. Willingness-to-pay is therefore a more accurate indicator of the true social benefits of preventing injuries to workers.

Using the "human capital" approach, OSHA has determined that the annual monetizable benefits would be from \$2.947 million to \$4.437 million greater from full compliance with the proposed standard than from full compliance with the existing standard. In present value terms (using a 10 percent discount rate), these potential increases in monetizable benefits would be between \$21.159 million and \$31.858 million over a 10-year period.

On the basis of the willingness-to-pay concept, OSHA has determined that the annual monetizable benefits would be from \$17.19 million to \$24.03 million (using \$3.5 million as the value for prevented fatality) greater from full compliance with the proposed standard than from full compliance with the existing standard. In present value terms, these potential increases in monetizable benefits would be between \$123.424 million and \$172.535 million over a 10-year period.

Using the baseline of existing industry practice, OSHA estimated the costs of full compliance with the proposed standard to be \$25.531 million in the first year and the annualized costs to be \$7.662 million. The present value of these costs over the next 10 years would be \$68.228 million. OSHA also estimated that the costs of full compliance with the existing standard to be \$28.167 million in the first year and the annualized costs to be \$15.319 million. The present value of these costs over the next 10 years would be \$119.364 million.

Thus, OSHA determined that the net first-year cost savings in going from full compliance with the existing Subpart L to the revised Subpart L would amount to \$2.636 million. The increase in labor costs of \$1.755 million, mainly attributable to the training requirement of the revised standard would be more than offset by the materials cost savings of \$4.391 million. The annual cost savings thereafter would amount to \$7.657 million. The present value of these annual cost savings over the next 10 years would amount to \$51.136 million.

Consequently, OSHA has concluded that full compliance with the proposed Subpart L would provide a safer environment at a lesser cost to the industry than would full compliance with the existing Subpart L and that the proposal is, therefore, the more cost-effective method of assuring the safety of employees working on scaffolds.

#### *Cost of Compliance for Other Proposed OSHA Construction Safety Standards*

OSHA considered the economic impact on the construction industry of this proposed revision and of the seven other construction standards that have been recently revised and promulgated or that are in the proposed or final rulemaking stage. Using the baseline of current industry practice, OSHA estimated that the annual total costs of these standards would be about \$3.4 million for Underground Construction (Subpart S), \$5.8 million for Crane- or Derrick-Suspended Personnel Platforms (Subpart N), \$28.7 million for Concrete and Masonry Construction (Subpart Q), \$12.5 million for Ladders and Stairways (Subpart X), \$48.0 million for Electrical Construction (Subpart K), and \$65.8 million for Fall Protection (Subpart M), and no costs for Trenching (Subpart P). Using the baseline of full compliance with the existing standard, OSHA estimated that the incremental costs of these standards would be about \$2.7 million for Underground Construction, \$2.2 million for Crane- or Derrick-Suspended Personnel Platforms, \$17.5 million for Concrete and Masonry Construction, and \$8.4 million for Ladders and Stairways. In addition, a cost savings of \$30.6 million for Electrical Construction, \$27.5 million for Fall Protection, and between \$11.7 million and \$428 million for Trenching is estimated for those revisions. Thus, the net impact of these actions combined with this action would be increased annualized costs of \$171.8 million when using a baseline of current industry practice and an annual cost savings between \$46.6 million and \$77.7 million when using a baseline of full compliance with the existing standards.

#### *Regulatory Flexibility Certification*

Pursuant to the Regulatory Flexibility Act (Pub. L. 96-353 Stat. 1164 (5 U.S.C. 60 et seq.)), the Assistant Secretary has made a preliminary assessment of the impact of the proposed standard and has concluded that it would not have a significant impact upon a substantial number of small entities. OSHA invites public comment concerning this preliminary conclusion.

The important criterion that governs a Regulatory Flexibility Analysis is whether the proposed standard would impose significant costs upon small entities. "Significance" is determined by the impact upon profits, market share, and on the entity's financial viability. In particular, the proposed standard's affect upon small entities relative to that upon large entities needs to be specifically evaluated. That is, OSHA

must determine whether the proposal would have a relatively greater negative effect on small entities than large entities, thereby putting small entities at a competitive disadvantage, and if so, whether there are ways to minimize these effects without increasing worker risk.

If the costs of compliance for small firms are relatively minor and are proportional to the size of the firm, then there is no significant differential effect. In those cases involving large absolute costs, small firms may have greater difficulty in obtaining financing, and in those cases involving economies of scale in compliance, the burden on small firms will be greater than the burden on large firms. The proposed changes to Subpart L, however, require minimal capital expenditures and provide net cost savings to employers in comparison with the costs of compliance under the current standard. Furthermore, as its provisions are more performance-oriented than specification-oriented, small entities can use the most cost-effective methods of employee protection best suited to their particular work situations. The costs of compliance primarily depend upon the amount of scaffold footage and the number of employees, which typically depend upon the scale of operation of the entity. In addition, these costs would be a minimal component of the overall cost of the facilities. As a result, small entities would not be put at a competitive disadvantage due to these compliance costs.

Thus, OSHA has concluded that this proposed standard would not have a significant adverse impact upon a substantial number of small entities.

The assessment is available for inspection and copying at the OSHA Technical Data Center, Room N-3670, 200 Constitution Avenue NW., Washington, DC 20210. OSHA invites comments concerning the conclusions reached in the Regulatory Assessment.

#### **V. Environmental Assessment**

##### *Finding of No Significant Impact*

This proposed rule and its major alternatives have been reviewed in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.), the Guidelines of the Council on Environmental Quality (CEQ) (40 CFR Part 1500), and OSHA's DOL NEPA Procedures (29 CFR Part 11). As a result of this review, the Assistant Secretary for OSHA has determined that the proposed rule will have no significant environmental impact.

The proposed revisions to 29 CFR 1926.450-460, Subpart L—Scaffolds, focus on the reduction of accidents or injuries by means of work practices and procedures, proper use and handling of equipment, and training, as well as on changes in language, definition, and format of the standard. These revisions do not impact on air, water, or soil quality, plant or animal life, the use of land, or other aspects of the environment. As such, these revisions are therefore categorized as excluded actions according to Subpart B, § 11.10, of the DOL NEPA regulations.

#### VI. References

1. U.S. Department of Labor, Bureau of Labor Statistics, *Work Injury Report on Scaffolds*, conducted May–November 1978, Unpublished.
2. U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Injury and Illness Information for 1977 Now Available from Supplementary Data System*, March 1980.
3. U.S. Department of Labor, Occupational Safety and Health Administration, *Occupational Fatalities Related to Scaffolds as Found in Reports of Fatality/Catastrophe Investigations*, May 1979.
4. Advisory Committee on Construction Safety and Health: *Transcripts of meetings held on June 2, 1977, November 29–30, 1977; February 15, 1978; April 25–26, 1978; and June 29–30, 1982*.
5. Wang Associates, Inc., *Study of Distance Between Structural Wall and Scaffold*, June 13, 1979, Unpublished.
6. Chaffin, Miodonski, Stobbe, Boydston, and Armstrong, *An Ergonomic Basis for Recommendations Pertaining to Specific Sections of OSHA Standard, 29 CFR Part 1910, Subpart D—Walking and Working Surface*, Department of Industrial and Operations Engineering College of Engineering, the University of Michigan, March 1978.
7. Ayoub and Bakken, *An Ergonomic Analysis of Selected Sections in Subpart D, Walking and Working Surfaces*, Texas Tech University, Institute of Biotechnology, Lubbock, Texas, August 1978.
8. Chaffin and Stobbe, *Ergonomic Considerations Related to Selected Fall Prevention Aspects of Scaffolds and Ladders as Presented in OSHA Standard 29 CFR Part 1910, Subpart D*, University of Michigan, September 1979.
9. Fattal, Cattaneo, Turner, and Robinson, *Personnel Guardrails for the Prevention of Occupational Accidents*, Center for Building Technology, Institute for Applied Technology, National Bureau of Standards, Washington, DC, July 1976 (NBSIR 76-1132).
10. Fattal and Cattaneo, *Investigation of Guardrails for the Protection of Employees from Occupational Hazards*, Center for Building Technology, Institute for Applied Technology, National Bureau of Standards, Washington, DC, July 1976 (NBSIR 76-1139).
11. U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Injuries and Illnesses in 1979: Summary*, Washington, DC, April 1981.

12. U.S. Department of Labor, Bureau of Labor Statistics, *Injuries Resulting From Falls From Elevations*, Bulletin 2195, June 1984.

#### VII. Recordkeeping

This proposal contains no recordkeeping requirements. However, public comment is requested in the Specific Issues section of this preamble on whether the proposed training requirements impose an implicit recordkeeping requirement on employers.

#### VIII. Public Participation

Interested persons are invited to submit written data, views, and arguments with respect to this proposal. The comments must be postmarked by February 23, 1987, and submitted in quadruplicate to the Docket Officer, Docket S-205, U.S. Department of Labor, Occupational Safety and Health Administration, Room N-3670, 200 Constitution Avenue, NW., Washington, DC 20210.

The data, views, and arguments that are submitted will be available for public inspection and copying at the above address. All timely submissions received will be made a part of the record of this proceeding.

Additionally, under section 6(b)(3) of the OSHA Act (29 U.S.C. 655) section 107 of the Construction Safety Act (41 U.S.C. 333), and 29 CFR 1911.11, interested persons may file objections to the proposal and request an informal hearing. The objections and hearing request should be submitted in quadruplicate to the Docket Officer at the address above and must comply with the following conditions:

1. The objections must include the name, and address of the objector;
2. The objections must be postmarked by February 23, 1987.
3. The objections must specify with particularity the provisions of the proposed rule to which each objection is taken and must state the grounds therefore;
4. Each objection must be separately stated and numbered; and
5. The objections must be accompanied by a detailed summary of the evidence proposed to be adduced at the requested hearing.

#### IX. State Plan States

The 25 States and territories with their own OSHA-approved occupational safety and health plans must adopt a comparable standard within six months of the publication date of the final rule. These States and territories are: Alaska, Arizona, California, Connecticut (for State and local government employees

only), Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New York (for State and local government employees only), New Mexico, North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, and Wyoming. Until such time as a comparable standard is promulgated, Federal OSHA will provide interim enforcement assistance, as appropriate, in these States and territories.

#### List of Subjects in 29 CFR Part 1926

Construction industry, Construction safety, Electric power, Fire prevention, Ladders and scaffolds, Occupational safety and health, Protective equipment, Safety, Tools, Welding.

#### Authority

This document was prepared under the direction of John A. Pendergrass, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210.

Accordingly, pursuant to sections 4, 6(b) and 8(g) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657), section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333), Secretary of Labor's Order No. 9-83 (48 FR 35736), and 29 CFR Part 1911, it is proposed to amend 29 CFR Part 1926 as set forth below.

Signed at Washington, DC, this 17th day of November 1986.

John A. Pendergrass,  
Assistant Secretary of Labor.

#### PART 1926—[AMENDED]

1. The authority citation for Subpart R of Part 1926 is revised to read as follows:

**Authority:** Section 107, Contract Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333); Sections 4, 6, 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657), Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), or 9-83 (48 FR 35736), as applicable.

#### § 1926.752 [Amended]

2. Paragraph (k) of § 1926.752 would be removed and reserved.
3. Subpart L of Part 1926 would be revised to read as follows:

#### Subpart L—Scaffolds

Sec.

- 1926.450 Scope, application, and definitions applicable to this subpart.  
1926.451 General requirements.  
1926.452 Additional requirements applicable to specific types of scaffolds.

Sec.  
1926.453-1926.459 [Reserved]  
1926.460 Training requirements.  
Appendix A to Subpart L—Scaffold  
Specifications

### Subpart L—Scaffolds

**Authority:** Section 107, Contract Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333); Sections 4, 6, 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657), Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), or 9-83 (48 FR 35736), as applicable.

#### § 1926.450 Scope, application and definitions applicable to this subpart.

(a) *Scope and application.* This subpart applies to all scaffolds used in construction, alteration, repair (including painting and decorating), and demolition workplaces covered under 29 CFR Part 1926.

(b) *Definitions.* "Adjustable suspension scaffold" means a suspension scaffold equipped with hoists that can be operated by employees on the scaffold.

"Bearer" means a horizontal transverse scaffold member (which may be supported by ledgers or runners) upon which the scaffold platform rests and which joins scaffold uprights, posts, poles, and similar members.

"Boatswains' chair" means a single point adjustable suspension scaffold consisting of a seat or sling designed to accommodate one employee in a sitting position.

"Body belt (safety belt)" means a strap with means for securing about the waist or body and for attaching to a lanyard, lifeline, or deceleration device.

"Body belt/harness system (personal fall arrest system)" means a combination of body belt, or body harness, and lanyard, deceleration device, lifeline, and point of anchorage.

"Body harness" means a design of straps which is secured about the employee in a manner to distribute the arresting forces over at least the thighs, shoulders, and pelvis, with provisions for attaching a lanyard, lifeline, or deceleration device.

"Brace" means a tie that holds one scaffold member in a fixed position with respect to another member. "Brace" also means a rigid type connection holding a scaffold to a building or structure.

"Bricklayers' square scaffold" means a supported scaffold composed of framed squares which support a platform.

"Carpenters' bracket scaffold" means a supported scaffold consisting of a platform supported by brackets attached to building or structural walls.

"Catenary scaffold" means a suspension scaffold consisting of a platform fastened to two essentially horizontal and parallel ropes, which are supported to structural members.

"Cleat" means structural members used at the ends of platform units to prevent the units from slipping off their supports. Cleats are also used to provide footing on sloped surfaces such as crawling boards.

"Coupler" means a device for locking together the component tubes of a tube and coupler scaffold.

"Crawling board (chicken ladder)" means a supported scaffold consisting of a plank with cleats spaced and secured to provide footing, for use on sloped surfaces such as roofs.

"Deceleration device" means any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, and automatic self-retracting lifeline, which serves to dissipate more energy during a fall arrest than does a standard line or strap webbing lanyard.

"Double pole (independent pole) scaffold" means a supported scaffold consisting of platforms resting on cross beams supported by ledgers and a double row of uprights independent of support (except ties, guys, braces) from any structure.

"Dropline" means a suspended vertical line, independent of the work platform, for direct attachment to a worker's body belt, body harness, lanyard, or deceleration device.

"Equivalent" means alternative designs, materials, or methods which the employer can demonstrate will provide an equal or greater degree of safety for employees than the method or item specified in the standard.

"Exposed power lines" means electrical power lines which are accessible to employees and not shielded from contact. Such lines do not include extension cords or power tool cords.

"Fabricated decking and planking" means manufactured platform units made of wood (including laminated wood, and solid sawn wood planks), metal or other materials.

"Fabricated frame scaffold (tubular welded frame scaffold)" means a supported or suspended scaffold consisting of a platform(s) supported on fabricated end frames with integral posts, horizontal bearers, and intermediate members.

"Failure" means load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

"Float (ship) scaffold" means a suspension scaffold consisting of a braced platform resting upon two

parallel bearers and hung from overhead supports by ropes of fixed length.

"Form scaffold" means a supported scaffold consisting of a platform supported by brackets attached to formwork.

"Guardrail system" means a vertical barrier erected to prevent employees from falling from an open side or edge of a scaffold platform or walkway. Type I guardrail systems are those systems capable of providing adequate fall protection without the use of body belts. Type II guardrail systems are those systems which serve as scaffold edge delineators, restrain movement, provide handholds, prevent misstepping, and which must be supplemented by body belt systems to provide adequate fall protection.

"Hoist" means a mechanical device to raise or lower a suspended scaffold. It can be either manually or mechanically power-operated.

"Horse scaffold" means a supported scaffold consisting of a platform supported by construction horses.

"Independent pole scaffold" (See "Double pole scaffold.")

"Interior hung scaffold" means a suspension scaffold consisting of a platform suspended from the ceiling or roof structure by fixed length supports.

"Ladder jack scaffold" means a supported scaffold consisting of a platform supported by brackets attached to ladders.

"Ladder stand" means a mobile, fixed-size, selfsupporting ladder consisting of a wide flat tread ladder in the form of stairs.

"Lean-to scaffold" means a supported scaffold which is kept erect by tilting it toward and resting it against a building or structure.

"Ledger" means a horizontal scaffold member upon which bearers rest. It is the longitudinal member which joins scaffold uprights, posts, poles, and similar members.

"Lower levels" means those areas to which an employee can fall. Such areas include ground levels, floors, roofs, ramps, runways, excavations, pits, tanks, materials, water, equipment, and similar surfaces.

"Masons' adjustable supported scaffold" (See definition for "Self-contained adjustable scaffold.")

"Masons' multi-point adjustable suspension scaffold" means a two-point or multi-point adjustable suspension scaffold designed and used for masonry operations.

"Maximum intended load" means the total load of all employees, equipment, tools, materials, transmitted loads, wind loads and other loads reasonably

anticipated to be applied to a scaffold or scaffold component at any one time.

"Mechanically-powered hoist" means a hoist which is powered by other than human energy.

"Mobile scaffold" means a powered or unpowered, portable, caster or wheel-mounted supported scaffold. Such scaffolds do not include crane or derrick suspended personnel platforms.

"Multi-level suspended scaffold" means a two-point or multi-point adjustable suspension scaffold with a series of platforms at various levels supported by common stirrups.

"Multi-point adjustable suspension scaffold" means a suspension scaffold consisting of a platform(s) suspended by more than two ropes from overhead supports and equipped with means to permit the raising and lowering of the platform to desired work levels.

"Needle beam scaffold" means a suspension scaffold consisting of a platform supported by needle beams.

"Open sides and ends" means the edges of a platform that are more than 14 inches (36 cm) away horizontally from a sturdy, continuous, vertical surface (such as a building wall) or a sturdy, continuous horizontal surface (such as a floor), except for plastering and lathing operations the limit is 18 inches (46 cm).

"Outrigger" means the structural member of a supported scaffold used to increase the base width of a scaffold in order to provide greater stability for the scaffold.

"Outrigger beam" means the structural member of a suspension scaffold or outrigger scaffold which provides support for the scaffold by extending the scaffold point of attachment to a point out and away from the structure or building.

"Outrigger scaffold" means a supported scaffold consisting of a platform supported by outrigger beams (thrustouts) projecting beyond the wall or face of the building or structure, the inboard ends of which are secured inside the building or structure.

"Overhand bricklaying operations" means the process of laying bricks and masonry units such that the surface of the wall to be jointed is on the opposite side of the wall from the mason, and the mason must lean over the wall to complete the work.

"Platform" means the horizontal working surface of a scaffold.

"Platform unit" means the individual wood planks, fabricated planks, fabricated decks, and fabricated platforms which comprise the platforms and walkways of a scaffold.

"Pole scaffold" (See definitions for "Single-pole scaffold" and "Double (independent) pole scaffold.")

"Pump jack scaffold" means a supported scaffold consisting of a platform supported by vertical poles and movable support brackets.

"Roof bracket scaffold" means a rooftop supported scaffold consisting of a platform supported by triangular-shaped supports.

"Runner" means the lengthwise horizontal bracing or bearing member which supports bearers on tube and coupler scaffolds.

"Scaffold" means any temporary elevated or suspended platform, and its supporting structure, used for supporting employees or materials or both, except this term does not include crane or derrick suspended personnel platforms.

"Self-contained adjustable scaffold" means a supported scaffold consisting of an adjustable platform(s) mounted on an independent supporting frame(s) not a part of the object being worked on, and which is equipped with a means to permit the raising and lowering of the platform(s) to desired work levels. Such systems include rolling roof rigs, rolling outrigger systems, and some masons' adjustable supported scaffolds.

"Shore scaffold" means a supported scaffold which is kept erect by placing it against a building or structure and holding it in place with props.

"Single-point adjustable suspension scaffold" means a suspension scaffold consisting of a platform suspended by one rope from an overhead support and equipped with means to permit the movement of the platform to desired work levels.

"Single-pole scaffold" means a supported scaffold consisting of platforms resting on bearers, the outside ends of which are supported on ledgers secured to a single row of posts or uprights, and the inner ends of which are supported on or in a structure or building wall.

"Step, platform, and trestle ladder scaffold" means a supported scaffold consisting of a platform supported directly on the rungs of step ladders or trestle ladders.

"Stonesetters' multi-point adjustable suspension scaffold" means a two-point or multi-point adjustable suspension scaffold designed and used for stonesetters' operations.

"Supported scaffold" means one or more working platforms supported from below by outriggers, brackets, poles, legs, uprights, posts, frames, or similar support.

"Suspension scaffold" means one or more working platforms suspended by

ropes or other means from an overhead structure(s).

"Trolley lines" means a horizontal line for direct attachment to a worker's body belt, lanyard, or deceleration device.

"Tube and coupler scaffold" means a supported or suspended scaffold consisting of platforms supported by individual pieces of tubing, erected with coupling devices connecting uprights, braces, bearers, and runners.

"Tubular welded frame scaffold" (See definition for "Fabricated frame scaffold.")

"Two-point suspension scaffold (swing stage)" means a suspension scaffold consisting of a platform supported by hangers (stirrups) suspended by two ropes from overhead supports and equipped with means to permit the raising and lowering of the platform to desired work levels.

"Unstable objects" means those items which do not properly distribute the loads imposed on them and which, therefore, do not constitute a proper base support for scaffolds, platform units, or employees. Examples of such objects include, but are not limited to, barrels, boxes, loose brick, and concrete blocks.

"Vertical pickup" means a rope used to support the horizontal rope in catenary scaffolds.

"Walkway" means a portion of a scaffold platform used only for access and not as a work level.

"Window jack scaffold" means a supported scaffold consisting of a platform supported by a bracket or jack which projects through a window opening.

"Worklevel" means an elevated platform used for supporting employees and their materials, where work activities are performed.

#### § 1926.451 General requirements.

The following requirements apply to all scaffolds as indicated:

(a) *Capacity.* Scaffold components and connections shall have the following capacities:

(1) Each scaffold and scaffold component, except suspension ropes and guardrail systems, shall be capable of supporting, without failure, its own weight and a least four times the maximum intended load applied or transmitted to that scaffold or scaffold component. Scaffold components selected, built, and loaded in accordance with Appendix A of this Subpart will be deemed to meet this requirement.

(2) Direct connections to roofs and floors, and counterweights used to

support suspension scaffolds, shall be capable of providing a resisting moment of at least four times the tipping moment.

(3) Each suspension rope shall be capable of supporting, without failure, at least six times the maximum intended load applied or transmitted to that rope.

(4) Suspension ropes shall be as follows:

(i) Ropes supporting adjustable suspension scaffolds shall be of a diameter large enough to provide sufficient surface area for the functioning of brake and hoist mechanisms.

(ii) Ropes supporting catenary scaffolds shall be equivalent in strength to at least one-half ( $\frac{1}{2}$ ) inch (1.3 cm) diameter improved plow steel wire rope;

(iii) Ropes supporting float (ship) scaffolds and needle beam scaffolds shall be equivalent in strength to at least one inch (2.5 cm) diameter first grade manila rope.

**Note.**—Ropes supporting boatswains' chairs are specified in § 1926.452(o).

(b) **Construction.** (1) Platforms, except those used as walkways, on all working levels on all scaffolds shall be fully planked or decked with platform units between the front uprights and the guardrail supports as follows.

(i) Platform units shall be placed as close as possible to adjacent units. Any space between adjacent units shall be no more than one inch (2.5 cm) wide except as necessary to fit around uprights when side brackets are used to extend the width of the platform.

(ii) Where full planking or decking cannot be obtained using standard width units, the platform shall be planked or decked as fully as possible; however, the remaining open space between the platform and guardrail supports shall not exceed nine and one-half inches (24.1 cm).

(2) All scaffold platforms and walkways shall be at least 18 inches (46 cm) wide except ladder jack scaffolds shall be a minimum of 12 inches (30 cm) wide, and boatswains' chairs may be any size.

(3) Emergency descent devices shall not be used as working platforms.

(4) Except as provided in paragraphs (b)(4) (i) and (ii) of this section, the front edge of all platforms shall be positioned not more than 14 inches (36 cm) from the face of the structure being worked on, unless Type I guardrails are erected along the open edge or body belt/harness systems are used to protect employees from falling.

(i) The maximum distance for outrigger scaffolds shall be three inches (8 cm);

(ii) The maximum distance for plastering and lathing operations shall be 18 inches (46 cm).

(5) Each end of a platform unit, unless cleated or otherwise restrained by hooks or equivalent means, shall extend over its support not less than six inches (15 cm).

(6) Each end of a platform unit shall not extend over its support more than 18 inches (46 cm), unless the unit is designed, capable, and installed to support employees without tipping or is guarded to prevent access of employees to the cantilevered end.

(7) On scaffolds where platform units are abutted to create a long platform, each abutted end shall rest on a separate support, butt plate, or equivalent means of support.

(8) On scaffolds where platform units are overlapped to create a long platform, the overlap shall occur only over supports, and shall not be less than 12 inches (30 cm) long unless the platform units are nailed together or otherwise restrained to prevent movement.

(9) At all points of a scaffold where the platform changes direction, such as turning a corner, any platform unit that rests on a bearer at an angle other than a right angle shall be laid first and platform units which rest at right angles over the same bearer shall be laid second, on top of the first units.

(10) Wood platform units shall not be covered with opaque finishes, except unit edges may be covered or marked for purposes of identification.

**Note.**—Platform units may be coated periodically with wood preservatives, fire-retardant finishes, and slip-resistant finishes; however, the coating may not obscure the top or bottom wood surfaces.

(11) Scaffold components manufactured by different manufacturers shall not be intermixed unless the component parts fit together without force. Scaffold components manufactured by different manufacturers shall not be modified in order to intermix them unless the resulting scaffold is determined by a competent person to be structurally sound.

(12) Scaffold components made of dissimilar metals shall not be used together unless a competent person has determined that galvanic action will not reduce the strength of any component to a level below that required by § 1926.451(a)(1).

(13) Supported scaffolds with a height to base width (including outrigger supports, if used) ratio of more than four to one shall be restrained from tipping by guying, tying, bracing, or other equivalent means.

(i) Guys, braces, or ties shall be provided at heights not to exceed the first multiple in height of the four to one ratio and at intervals not to exceed 20 feet (6.1 m) thereafter.

(ii) Guys, ties and braces which are required by the four to one rule shall be installed at each end of the scaffold and at horizontal intervals not to exceed 30 feet (9.1 m) (measured from one end towards the other).

(14) Supported scaffold poles, legs, posts, frames, and uprights shall bear on base plates and mud sills or other adequate firm foundation.

(i) Such footings shall be level, sound, rigid, and capable of supporting the scaffold in a loaded condition without settling or displacement.

(ii) Unstable objects shall not be used to support scaffolds or platform units.

(iii) Unstable objects shall not be used as working platforms.

(15) Supported scaffold poles, legs, posts, frames, and uprights shall be plumb and braced to prevent swaying and displacement.

(16) All suspension scaffold support devices such as outrigger beams, cornice hooks, parapet clamps, and similar devices, shall rest on surfaces capable of supporting the reaction forces imposed by the scaffold hoist operating at its maximum rated load.

(17) Suspension scaffold outrigger beams shall be made of structural metal and shall be restrained to prevent movement.

(18) The inboard ends of suspension scaffold outrigger beams shall be stabilized by bolts or other direct connections to the floor or roof deck, or they shall have their inboard ends stabilized by counterweights, except masons' adjustable multi-point suspension scaffold outrigger beams shall not be stabilized by counterweights.

(i) Before use, direct connections shall be evaluated by a competent person who shall affirm, based on the evaluation, that the supporting surfaces are capable of supporting the loads to be imposed. In addition, masons' adjustable multipoint suspension scaffold connections shall be designed by an engineer experienced in such scaffold design.

(ii) Counterweights shall be made of non-flowable solid material.

(iii) Counterweights shall be secured by mechanical means to the outrigger beams.

(iv) Counterweights shall not be removed from a scaffold until the scaffold is disassembled.

(v) Outrigger beams shall be secured by tiebacks equivalent in strength to the suspension ropes.

(vi) Tiebacks shall be secured to a structurally sound portion of the building or structure.

(vii) Tiebacks shall be installed parallel to the centerline of the beam.

(19) Suspension scaffold outrigger beams shall be:

(i) Provided with stop bolts or shackles at both ends;

(ii) Securely fastened together with the flanges turned out when channel iron beams are used in place of I-beams;

(iii) Installed with all bearing supports perpendicular to the beam center line;

(iv) Set and maintained with the web in a vertical position; and

(v) Where a single outrigger beam is used, the steel shackles or clevises with which the wire ropes are attached to the outrigger beams shall be placed directly over the hoisting machines.

(20) Suspension scaffold support devices such as cornice hooks, roof hooks, roof irons, parapet clamps, or similar devices shall be:

(i) Made of mild steel, wrought iron, or equivalent materials;

(ii) Supported by bearing blocks; and

(iii) Secured against movement by tiebacks installed at right angles to the face of the building whenever possible, and secured to a structurally sound portion of the building. Tiebacks shall be equivalent in strength to the hoisting rope.

(21) When winding drum hoists are used on a suspension scaffold, they shall contain not less than four wraps of the suspension rope at the lowest point of scaffold travel. When other types of hoists are used, the suspension ropes shall be of such length that the scaffold can be lowered to the level below without the rope end passing through the hoist, or the rope end shall be configured or provided with means to prevent the end from passing through the hoist.

(22) The repairing of wire suspension rope is prohibited.

(23) Wire suspension ropes shall not be joined together except by eyesplicing with shackles or coverplates and bolts.

(24) The load end of wire suspension ropes shall be equipped with proper size thimbles and secured by eyesplicing or equivalent means.

(25) Defective or damaged ropes shall not be used as suspension ropes or drop lines.

(26) Swaged attachments or spliced eyes on wire suspension ropes shall not be used unless they are made by the wire rope manufacturer or a qualified person.

(27) When wire rope clips are used on suspension scaffolds, they shall be retightened after initial loading and shall be inspected and retightened periodically thereafter.

(28) Suspension scaffold mechanically-powered hoists and manually-powered hoists shall be of a type tested and listed by a qualified testing laboratory.

(29) Gasoline-powered hoists shall not be used on suspension scaffolds.

(30) Gears and brakes of mechanically-power-operated hoists used on suspension scaffolds shall be enclosed.

(31) In addition to the normal operating brake, suspension scaffold hoists shall have a braking device or locking pawl which engages automatically when the normal speed of descent of the hoist is exceeded.

(32) Manually-powered hoists shall require a positive crank force to descend.

#### (c) Access.

**Note.**—The following requirements do not apply to employees performing scaffold erection and dismantling operations.

(1) Access to and between scaffold platforms more than two feet (0.6m) above or below the point of access shall be by portable ladders, hook-on ladders, attachable ladders, stairway-type ladders (such as ladder stands), ramps, runways, integral prefabricated scaffold rungs, or equivalent means, or by direct access from another scaffold, structure, personnel hoist, or similar surface. Employees shall not use crossbraces as a means of access.

(2) Portable, hook-on, and attachable ladders:

(i) Portable, hook-on, and attachable ladders shall be positioned so as not to tip the scaffold;

**Note.**—Additional requirements for the proper construction and use of portable ladders are contained in Subpart X—Stairways and Ladders.

(ii) Hook-on and attachable ladders shall be positioned such that their bottom rung is not more than 24 inches (61 cm) above the scaffold supporting level;

(iii) Hook-on and attachable ladders shall be provided with rest platforms at 20 foot (6.0 m) maximum vertical intervals for attached ladders;

(iv) Hook-on and attachable ladders shall be specifically designed for use with manufactured types of scaffolds;

(v) Have a minimum rung length of 11 1/2 inches (29 cm); and

(vi) Have a maximum spacing between rungs of 12 inches (30 cm).

(3) Stairway-type ladders shall:

(i) Be positioned such that their bottom step is not more than 24 inches (61 cm) above the scaffold supporting level;

(ii) Be provided with rest platforms at 12 foot (3.7 m) maximum vertical intervals;

(iii) Have a minimum step width of 16 inches (41 cm); and

(iv) Have slip-resistant treads on all steps and landings.

(4) Ramps and runways shall be provided with guardrails in accordance with the provisions of §§ 1926.501 and 1926.502.

(5) Integral prefabricated scaffold rungs shall:

(i) Be specifically designed for use as ladder rungs;

(ii) Have a minimum rung length of 11 1/2 inches (29 cm);

(iii) Be uniformly spaced within the frame;

(iv) Be provided with rest platforms at 20 foot (6.0 m) maximum vertical intervals, and

(v) Have a maximum spacing between rungs of 16 1/2 inches (42 cm), however, non-uniform rung spacing caused by joining end frames together is allowed, provided the resulting spacing does not exceed 16 1/2 inches (42 cm).

(6) All steps and rungs shall line up vertically with each other between rest platforms.

(7) Direct access shall be used only when the scaffold is not more than 14 inches (36 cm) horizontally and not more than 24 inches (61 cm) vertically from the other surface.

(d) *Use.* (1) Scaffolds and scaffold components shall not be loaded in excess of their maximum intended loads or rated capacities.

(2) The use of shore or lean-to scaffolds is prohibited.

(3) Scaffolds and scaffold components shall be inspected for visible defects by a competent person prior to each workshift, and after any occurrence which could affect a scaffold's structural integrity.

(4) Any part of a scaffold damaged or weakened such that a competent person determines its strength is reduced to less than that required by § 1926.451(a) shall be immediately braced or removed from service until repaired.

(5) Scaffolds shall not be moved laterally while employees are on them, except mobile scaffolds may be moved if the provisions of § 1926.452(w) are followed.

(6) Scaffolds shall not be erected, used, or moved closer to exposed and energized power lines than as follows:

(i) For all lines of more than 50 kv, minimum clearance between the lines

and all parts of the scaffold shall be 10 feet (3.1 m) plus 0.4 inch (1 cm) for each 1 kv over 50 kv, or twice the length of the line insulator, but never less than 10 feet (3.1 m);

(ii) For all insulated lines between 300 volts and 50 kv, the minimum clearance between the lines and all parts of the scaffold shall be 10 feet (3.1 m);

(iii) For all insulated lines of less than 300 volts, the minimum clearance between the lines and all parts of the scaffold shall be two feet (0.6 m);

(iv) For all lines of any voltage which are uninsulated, the minimum clearance between the lines and all parts of the scaffold shall be: 10 feet (3.1 m) for lines of 50 Kv and less; and for lines more than 50 Kv, 10 feet (3.1 m) plus 0.4 inch (1 cm) for each 1 Kv over 50 Kv, or twice the length of the line insulator, but never less than 10 feet (3.1 m).

(7) Scaffolds shall not be erected, moved, dismantled, or altered except under the supervision of a competent person.

(8) Employees shall be prohibited from working on scaffolds covered with snow, ice, or other slippery material except as necessary for removal of such materials.

(9) Where swinging loads are being hoisted onto or near scaffolds such that the loads could contact the scaffold, tag lines or equivalent measures to stabilize the loads shall be utilized.

(10) Suspension ropes shall be shielded when a heatproducing process is performed. When acids or other corrosive substances are used on a scaffold, the ropes shall be shielded, treated to resist the corrosive substances, or shall be of a material which is not adversely affected by the substance being used.

(11) Work on or from scaffolds is prohibited during storms or when wind speeds at the level of work exceed 40 mph (64 km/hour), unless employees are protected by a body belt/harness system or wind screen. Wind screens shall not be used unless the scaffold is secured against the forces imposed.

(12) Debris shall not be allowed to accumulate on platforms.

(13) Ladders and makeshift devices shall not be used on top of scaffold platforms to increase the working level height of employees.

(14) Platform units shall not deflect more than 1/60 of the span when loaded.

(e) *Fall protection.* (1) Employees (except those erecting or dismantling scaffolds) on platforms more than 10 feet (3.0 m) above lower levels shall be protected from falling to those lower levels by the use of body belt/harness systems or Type I guardrail systems, except as follows:

(i) Employees on boatswains' chairs, catenary scaffolds, float scaffolds, needle beam scaffolds, and ladder jack scaffolds shall be protected by body belt/harness systems;

(ii) Employees on single-point adjustable suspension scaffolds and on two-point adjustable suspension scaffolds shall be protected by body belt/harness systems and Type I or Type II guardrail systems;

(iii) Employees on crawling boards (chicken ladders) shall be protected by body belt/harness systems, Type I guardrail systems, or by a three-fourth inch diameter grabline or equivalent handhold securely fastened beside each crawling board;

(iv) Employees on self-contained adjustable scaffolds shall be protected by Type I guardrail systems when the platform is supported by the frame structure, and by body belt/harness systems and Type I guardrail systems when the platform is supported by ropes;

(v) Employees on walkways located within a scaffold shall be protected by a Type I guardrail system installed within eight inches along at least one side of the walkway.

**Note.**—Requirements to protect employees performing overhand bricklaying operations from supported scaffolds are provided in § 1926.501.

(2) Employees (except those erecting or dismantling scaffolds) on platforms (except self-contained adjustable scaffolds and those types of scaffolds covered by § 1926.452) which are less than 45 inches (1.1 m) wide, and are four feet (1.2 m) to 10 feet (3.0 m) above lower levels, shall be protected from falling to those lower levels by the use of a body belt/harness system or Type I guardrail system.

(3) Body belt/harnesses shall be attached by lanyard to a dropline, trolley line, or scaffold structural member. However, when overhead obstructions such as overhead protection or additional platform levels are part of a single-point or two-point adjustable suspension scaffold, then droplines shall not be used.

(i) Droplines, when used, shall be fastened to a fixed safe point of anchorage, shall be independent of the scaffold, and shall be protected from sharp edges and abrasion.

(ii) Trolley lines, when used, shall be secured to two or more structural members of the scaffold, and shall not be attached to the suspension ropes.

(iii) When lanyards are connected to trolley lines or structural members on a single-point or two-point adjustable suspension scaffold, the scaffold shall

be equipped with additional independent support lines and automatic locking devices capable of stopping the fall of the scaffold in the event one or both of the suspension ropes fail. The independent support lines shall be equal in number and strength to the suspension ropes.

(iv) Droplines, independent support lines, and suspension ropes shall not be attached to each other, nor shall they be attached to nor use the same point of anchorage.

**Note.**—Safe points of anchorage include structural members of buildings, but do not include standpipes, vents, other piping systems, electrical conduit, outrigger beams, nor counterweights.

(4) Guardrail systems shall comply with the following provisions (guardrail systems built in accordance with Appendix A will be deemed to meet the requirements of paragraphs (e)(4)(vii), (viii), (ix), and (x) of this section):

(i) Guardrail systems, when used, shall be installed along all open sides and ends of platforms.

(ii) The top edge height of top rails or equivalent member shall be installed between 38 inches (1.0 m) and 45 inches (1.2 m) above the platform surface for Type I guardrail systems, and between 36 inches (0.9 m) and 45 inches (1.2 m) above the platform surface for Type II guardrail systems.

(iii) Midrails, screens, mesh, intermediate vertical members, solid panels, or equivalent structural members shall be installed between the top edge of the guardrail system and the scaffold platform.

(iv) Midrails, when used, shall be installed at a height midway between the top edge of the guardrail system and the platform surface.

(v) Screens and mesh, when used, shall extend from the top edge of the guardrail system to the scaffold platform, and along the entire opening between the supports.

(vi) Intermediate vertical members (such as balusters), when used, shall be not more than 19 inches (48 cm) apart.

(vii) Top rails or equivalent members shall be capable of withstanding, without failure, a force applied in any downward or horizontal direction at any point along their top edge of at least 200 pounds (890 n) for Type I guardrail systems, and at least 100 pounds (445 n) for Type II guardrail systems.

(viii) When the loads specified in paragraph (e)(4)(vii) of this section are applied in a downward direction, the top edge shall not deflect to a height less than 38 inches (1.0 m) above the platform surface for Type I guardrail

systems, and 36 inches (0.9 m) for Type II guardrail systems.

(ix) Midrails shall be capable of withstanding, without failure, a force applied in any downward or horizontal direction at any point along the midrail of at least 150 pounds (666 n) for Type I guardrail systems, and at least 75 pounds (333 n) for Type II guardrail systems.

(x) Suspension scaffold hoists and non-walk through stirrups are acceptable as end guardrails, provided that the space between the hoist or stirrup and the side guardrail or structure does not allow passage of employees to the end of the scaffold.

(xi) Toprails and midrails shall be so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing which could cause an employee to fall.

(xii) The ends of all rails shall not overhang the terminal posts except where such overhang does not constitute a projection hazard to employees near such overhang.

(xiii) Steel or plastic banding shall not be used as a toprail or midrail.

(f) *Falling object protection.* (1) In addition to wearing hardhats, employees on scaffolds shall be protected from falling objects by toeboards, screens, or guardrail systems erected to prevent objects from falling from higher levels, or they shall be protected by a canopy structure erected to deflect falling objects.

**Note.**—The criteria for toeboards, screens, and guardrail systems which are not part of a scaffold, but which are installed to prevent objects from falling onto a scaffold, are as set forth for falling object protection in § 1926.502(j).

(i) Canopies, when used, shall be installed between the falling object hazard and the employees.

(ii) When canopies are used on suspension scaffolds, the scaffolds shall be equipped with additional independent support lines equal in number to the number of points supported, and equivalent in strength to the suspension ropes.

(iii) Independent support lines and suspension ropes shall not be attached to the same points of anchorage.

(2) Where there is a danger of tools, materials, or equipment falling from a scaffold and striking employees below, the following provisions apply:

(i) The area below the scaffold to which objects can fall shall be barricaded and employees not permitted to enter the hazard area; or

(ii) A toeboard shall be erected along the edge of platforms more than 10 feet (3.1 m) above lower levels, for a

distance sufficient to protect employees below, except on float (ship) scaffolds where an edging of  $\frac{3}{4}$  x  $1\frac{1}{2}$  inch (2 x 4 cm) wood or equivalent may be used in lieu of a toeboard; or

(iii) Where tools, materials, or equipment are piled to a height higher than the top edge of the toeboard, a screen conforming to § 1926.502 and extending from the toeboard or platform to the top of the guardrail shall be erected for a distance sufficient to protect employees below, or

(iv) A guardrail system shall be installed with openings small enough to reject passage of potential falling objects, or

(v) A canopy structure built to withstand the impact forces of the potential falling objects shall be erected over the employees below.

(3) Where used, toeboards shall be:

(i) Capable of withstanding, without failure, a force of at least 50 pounds (222 n) applied in any downward or horizontal direction at any point along the toeboard (toeboards built in accordance with Appendix A will be deemed to meet this requirement); and

(ii) Three and one-half inches (9 cm) minimum in height from their top edge to the level of the walking/working surface. They shall be securely fastened in place at the outermost edge of the platform and have not more than one-half inch (1.3 cm) clearance above the walking/working surface. They shall be solid or with openings not over one inch (2.5 cm) in the greatest dimension.

#### **§ 1926.452 Additional requirements applicable to specific types of scaffolds.**

The following requirements apply to the specific types of scaffolds as indicated, in addition to the general requirements of § 1926.451.

(a) *Pole scaffolds.* (1) When platforms are being moved to the next level, the existing platform shall be left undisturbed until the new bearers have been set in place and braced prior to receiving the new platform units.

(2) Crossbracing shall be installed between the inner and outer sets of poles on double pole scaffolds.

(3) Diagonal bracing in both directions shall be installed across the entire inside face of double pole scaffolds used to support loads equivalent to a uniformly distributed load of 50 pounds (222 kg) or more per square foot (929 square cm).

(4) Diagonal bracing in both directions shall be installed across the entire outside face of all double and single pole scaffolds.

(5) Ladders and bearers shall be installed on edge.

(6) Bearers shall extend a minimum of three inches (7.6 cm) over the outside edges of ledgers.

(7) Ledgers shall extend over a minimum of two poles, and shall be supported by bearing blocks securely attached to the poles.

(8) Braces, bearers, and ledgers shall not be spliced between poles.

(9) Where wood poles are spliced, the ends shall be squared and the upper section shall rest squarely on the lower section. Wood splice plates shall be provided on at least two adjacent sides and shall be not less than four feet (1.2 m) in length, overlap the abutted ends equally, and have at least the same cross-sectional areas as the pole. Splice plates of other materials of equivalent strength may be used.

(10) Scaffolds and scaffold components not built or loaded in accordance with Appendix A shall be designed by a registered professional engineer and shall be constructed and loaded in accordance with such design.

(b) *Tube and coupler scaffolds.* (1) When platforms are being moved to the next level, the existing platform shall be left undisturbed until the new bearers have been set in place and braced prior to receiving the new platform units.

(2) Transverse bracing across the width of the scaffold shall be installed at the scaffold ends and at least at every third set of posts. Such bracing shall be installed for each section of six levels between the fourth and sixth levels, and, shall extend diagonally from the inner or outer posts or runners at the bottom of the fourth level, upward to the inner or outer posts or runners at the bottom of the fifth level, and similarly to the sixth level.

(3) Longitudinal bracing across the inner and outer rows of posts shall be installed diagonally in both directions, and shall extend from the base of the end posts upward to the top of the scaffold at approximately a 45 degree angle. On scaffolds whose length is greater than their height, such bracing shall be repeated beginning at least at every fifth post. On scaffolds whose length is shorter than their height, such bracing shall be installed from the base of the end posts upward to the opposite end posts, and then in alternating directions until reaching the top of the scaffold.

(4) Where conditions preclude the attachment of bracing to posts, bracing shall be attached to the runners.

(5) Bearers shall be installed transversely between posts, and when coupled to the posts, shall have the inboard coupler bear directly on the runner coupler. When the bearers are

coupled to the runners, the couplers shall be as close to the posts as possible.

(6) Bearers shall extend beyond the posts and runners, and shall provide full contact with the coupler.

(7) Runners shall be installed along the length of the scaffold, located on both the inside and outside posts at level heights (when tube and coupler guardrails and midrails are used on outside posts they may be used in lieu of outside runners).

(8) Runners shall be interlocked on straight runs to form continuous lengths and shall be coupled to each post. The bottom runners shall be located as close to the base as possible.

(9) Couplers shall be of a structural metal, such as a drop-forged steel, malleable iron, or structural grade aluminum. The use of gray cast iron is prohibited.

(10) Scaffolds and scaffold components not built and loaded in accordance with Appendix A shall be designed by a registered professional engineer and shall be constructed and loaded in accordance with such design.

(c) *Fabricated frame scaffolds.* (1) When moving platforms to the next level, the existing platform shall be left undisturbed until the new end frames have been set in place and braced prior to receiving the new platform units.

(2) Frames and panels shall be braced by cross, horizontal, or diagonal braces, or combination thereof, to secure vertical members together laterally. The cross braces shall be of such length as will automatically square and align vertical members so that the erected scaffold is always plumb, level, and square. All brace connections shall be made secure.

(3) Frames and panels shall be joined together vertically by coupling or stacking pins or equivalent means.

(4) Where uplift can occur which would displace scaffold end frames or panels, the frames or panels shall be locked together vertically by pins or equivalent means.

(5) Brackets used to support cantilevered loads shall be seated with side-brackets parallel to the frames, and end-brackets at 90 degrees to the frames. Brackets shall not be bent or twisted from these positions.

(6) Scaffolds over 125 feet (38.0 m) in height above their base plates shall be designed by a registered professional engineer and shall be constructed and loaded in accordance with such design.

(d) *Plasterers', decorators', and large area scaffolds.* Scaffolds shall be constructed in accordance with paragraphs (a), (b), or (c) of this section.

(e) *Bricklayers' square scaffolds (Squares).* (1) Scaffolds made of wood shall be reinforced with gussets on both sides of each corner.

(2) Diagonal braces shall be installed on all sides of each square.

(3) Diagonal braces shall be installed between squares on the rear and front sides of the scaffold, and shall extend from the bottom of each square to the top of the next square.

(4) Scaffolds shall not exceed three tiers in height, and shall be so constructed and arranged that one square rests directly above the other. The upper tiers shall stand on a continuous row of planks laid across the next lower tier and be nailed down or otherwise secured to prevent displacement.

(f) *Horse scaffolds.* (1) Scaffolds shall not be constructed or arranged more than two tiers or 10 feet (3.0 m) in height, whichever is less.

(2) When arranged in tiers, each horse shall be placed directly over the horse in the tier below.

(3) When arranged in tiers, the legs of each horse shall be nailed down or otherwise secured to prevent displacement.

(4) When arranged in tiers, each tier shall be crossbraced.

(g) *Form scaffolds and carpenters' bracket scaffolds.* (1) Each bracket, except those for wooden bracket form scaffolds, shall be attached to the supporting formwork or structure by means of one or more of the following: nails; a metal stud attachment device; welding; hooking over a secured structural supporting member, provided the form walers are bolted to the form or secured by snap ties or tie-bolts extending through the form and securely anchored; or, for carpenters' bracket scaffolds only, by a bolt extending through to the opposite side of the structure's wall.

(2) Wooden bracket form scaffolds shall be an integral part of the form panel.

(3) Folding type metal brackets, when extended for use, shall be either bolted or secured with a locking-type pin.

(h) *Roof bracket scaffolds.* (1) Scaffold brackets shall be constructed to fit the pitch of the roof and shall provide a level support for the platform.

(2) Brackets (including those provided with pointed metal projections) shall be anchored in place by nails unless it is impractical to use nails. When nails are not used, brackets shall be secured in place with first-grade manila rope of at least three-fourth inch (1.9 cm) diameter, or equivalent.

(i) *Outrigger scaffolds.* (1) The inboard end of outrigger beams, measured from

the fulcrum point to the extreme point of anchorage, shall be not less than one and one-half times the outboard end in length.

(2) Outrigger beams shall rest on edge, the sides shall be plumb, and the edges shall be horizontal.

(3) The fulcrum point of outrigger beams shall rest on secure bearings at least six inches (15.2 cm) in each horizontal dimension.

(4) Outrigger beams shall be secured in place against movement and shall be securely braced at the fulcrum point against tipping.

(5) The inboard ends of outrigger beams shall be securely anchored either by means of braced struts bearing against sills in contact with the overhead beams or ceiling, or by means of tension members secured to the floor joists underfoot, or by both, if necessary.

(6) The entire supporting structure shall be securely braced to prevent any horizontal movement.

(7) To prevent displacement, platform units shall be nailed, bolted, or otherwise secured to outriggers.

(8) Scaffolds and scaffold components not built and loaded in accordance with Appendix A shall be designed by a registered professional engineer and shall be constructed and loaded in accordance with such design.

(j) *Pump jack scaffolds.* (1) Pump jack brackets, braces, and accessories shall be fabricated from metal plates and angles. Each pump jack bracket shall have two positive gripping mechanisms to prevent any failure or slippage.

(2) Poles shall be secured to the structure by rigid triangular bracing or equivalent, at the bottom, top, and other points as necessary. For the pump jack to pass bracing already installed, an additional brace shall be installed approximately four feet (1.2 m) on the side opposite the brace from the pump jack, and shall be left in place until the pump jack has been moved and the original brace reinstalled.

(3) When guardrails are used for fall protection, a workbench may be used as the toprail only if it meets all the requirements in paragraphs (e)(5) (ii), (vii), (viii), (xii), and (xiii) of this section.

(4) Workbenches shall not be used as scaffold platforms.

(5) When poles are made of wood, the pole lumber shall be straight-grained, free of shakes, large loose or dead knots, and other defects which might impair strength.

(6) When wood poles are constructed of two continuous lengths, they shall be joined together with the seam parallel to the bracket.

(7) When two by fours are spliced to make a pole, the splices shall be so constructed as to develop the full strength of the member.

(k) *Ladder jack scaffolds.* (1) Platforms shall not exceed a height of 20 feet (6.1 m).

(2) All ladders used to support ladder jack scaffolds shall meet the requirements of § 1926.1053 of Subpart X—Stairways and Ladders, except job-made ladders shall not be used to support ladder jack scaffolds.

(3) The ladder jack shall be so designed and constructed that it will bear either on the side rails and ladder rungs or on the ladder rungs alone. If bearing on rungs only, the bearing area shall be at least 10 inches (25.4 cm) on each rung.

(4) Ladders used to support ladder jacks shall be placed, fastened, or equipped with devices to prevent slipping.

(5) Scaffold platforms shall not be bridged one to another.

(l) *Window jack scaffolds.* (1) Scaffolds shall be securely attached to the window opening.

(2) Scaffolds shall be used only for the purpose of working at the window opening through which the jack is placed.

(3) Window jacks shall not be used to support planks placed between one window jack and another, or for other elements of scaffolding.

(m) *Crawling boards (chicken ladders).* (1) Crawling boards shall extend from the roof peak to the eaves when used in connection with roof construction, repair, or maintenance.

(2) Crawling boards shall be secured to the roof by ridge hooks or equivalent means.

(n) *Step, platform, and trestle ladder scaffolds.* (1) Scaffold platforms shall not be placed any higher than the second highest rung or step of the ladder supporting the platform.

(2) All ladders used in conjunction with step, platform and trestle ladder scaffolds shall meet the requirements of § 1926.1053 of Subpart X—Stairways and Ladders, except job-made ladders shall not be used to support such scaffolds.

(3) Ladders used to support step, platform, and trestle ladder scaffolds shall be placed, fastened, or equipped with devices to prevent slipping.

(4) Scaffolds shall not be bridged one to another.

(o) *Single-point adjustable suspension scaffolds.* (1) When two single-point adjustable suspension scaffolds are combined to form a two-point adjustable suspension scaffold, the resulting scaffold shall meet the requirements for

two-point adjustable suspension scaffolds.

(2) Except as provided herein, the supporting rope shall be vertical between the scaffold and the suspension device. The scaffold shall not be swayed nor the rope fixed to any intermediate point(s) to change the direction of the rope. *Exception:* When the scaffold is on the outside of a dome-type or slanted structure, intermediate supports may be used to change the direction of the rope from a vertical direction. Such supports shall be designed and installed to prevent chafing of the rope.

(3) Boatswains' chairs tackle shall be correct size ball bearing or bushed blocks, and properly "eye" spliced minimum five-eighth (5/8) inch (1.6 cm) diameter first grade manila rope, or equivalent.

(4) Boatswains' chairs seat slings shall be reeved through four corner holes in the seat; shall cross each other on the underside of the seat; and shall be rigged so as to prevent slippage which could cause an out-of-level condition.

(5) Boatswains' chairs seat slings shall be a minimum of five-eighth (5/8) inch (1.6 cm) diameter fiber or synthetic rope or equivalent, when employees are not using a heat producing process such as gas or arc welding.

(6) When a heat-producing process is being conducted, boatswains' chairs seat slings shall be a minimum of three-eighth (3/8) inch (1.0 cm) wire rope.

(7) Non-cross-laminated wood boatswains' chairs shall be reinforced on their underside by cleats securely fastened to prevent the board from splitting.

(p) *Two-point adjustable suspension scaffolds (swing stages).*

**Note.**—The following requirements do not apply to two-point adjustable suspension scaffolds used as masons' or stonemasons' scaffolds. Such scaffolds are covered by paragraph (q) of this section.

(1) Platforms shall not be more than 36 inches (0.9 m) wide unless designed by a qualified person to prevent unstable conditions.

(2) The platform shall be securely fastened to hangers (stirrups) by U-bolts or equivalent means.

(3) The blocks for fiber or synthetic ropes shall consist of at least one double and one single block. The sheaves of all blocks shall fit the size of the rope used.

(4) Platforms shall be ladder-type, plank-type, beam-type, or light-metal type. Light metal-type platforms shall be tested and listed by a nationally-recognized testing laboratory.

(5) Scaffolds shall be tied or otherwise secured to prevent them from swaying. Window cleaners' anchors shall not be used for this purpose.

(6) Two-point scaffolds designed for use as two-point scaffolds shall not be bridged or otherwise connected one to another during raising and lowering operations. Two-point scaffolds designed for use in multi-point scaffolds may be bridged one to another if the bridge connections are articulated, and the hoists properly sized.

(7) Passage may be made from one platform to another only when the platforms are at the same height, are abutting closely, and walk-through stirrups specifically designed for this purpose are used.

(q) *Multi-point adjustable suspension scaffolds, stonemasons' multi-point adjustable suspension scaffolds, and masons' multi-point adjustable suspension scaffolds.*

(1) When two or more scaffolds are used they shall not be bridged one to another unless they are designed to be bridged, the bridge connections are articulated, and the hoists are properly sized.

(2) If bridges are not used, passage may be made from one platform to another only when the platforms are at the same height and are abutting closely.

(3) Scaffolds shall be suspended from metal outriggers, iron brackets, wire rope slings, iron hooks, or equivalent means.

(r) *Catenary scaffolds.* (1) No more than one platform shall be placed between consecutive vertical pickups, and no more than two platforms shall be used on a catenary scaffold.

(2) Platforms supported by wire ropes shall have hookshaped stops on each end of the platforms to prevent them from slipping off the wire ropes. These hooks shall be so placed that they will prevent the platform from falling if one of the horizontal wire ropes breaks.

(3) Wire ropes shall not be tightened to the extent that the application of a scaffold load will overstress them.

(4) Wire ropes shall be continuous and without splices between anchors.

(s) *Float (ship) scaffolds.* (1) The platform shall be supported by a minimum of two bearers, each of which shall project a minimum of six inches (15.2 cm) beyond the platform on both sides. Each bearer shall be securely fastened to the platform.

(2) Rope connections shall be such that the platform cannot shift or slip.

(3) When only two ropes are used with each float:

(i) They shall be arranged so as to provide four ends which are to be securely fastened to overhead supports.

(ii) Each supporting rope shall be hitched around one end of the bearer

and pass under the platform to the other end of the bearer where it is hitched again, leaving sufficient rope at each end for the supporting ties.

(t) *Interior hung scaffolds.* (1)

Scaffolds shall be suspended only from the roof structure or other structural members such as ceiling beams.

(2) Overhead supporting members (roof structure, ceiling beams, or other structural members) shall be inspected and checked for strength before the scaffold is erected.

(3) Suspension ropes and cable shall be connected to the overhead supporting members by shackles, clips, thimbles, or equivalent means.

(u) *Needle beam scaffolds.* (1)

Scaffold support beams shall be installed on edge.

(2) Ropes or hangers shall be used for supports, except that one end of a needle beam scaffold may be supported by a permanent structural member.

(3) The ropes shall be securely attached to the needle beams.

(4) The support connection shall be arranged so as to prevent the needle beam from rolling or becoming otherwise displaced.

(5) Platform units shall be securely attached to the needle beams by bolts or equivalent means.

**Note.**—Cleats and overhang are not considered to be adequate means of attachment.

(v) *Multi-level suspended scaffolds.*

(1) Scaffolds shall be equipped with additional independent support lines, equal in number to the number of points supported, and equivalent in strength to the strength of the suspension ropes, and rigged to support the scaffold in the event the suspension rope(s) fail.

(2) Independent support lines and suspension ropes shall not be attached to the same points of anchorage.

(3) Supports for platforms shall be attached directly to the support stirrup and not to any other platform.

(w) *Mobile scaffolds.* (1) Scaffolds shall be braced by cross, horizontal, or diagonal braces, or combination thereof, to prevent collapse of the scaffold and to secure vertical members together laterally so as to automatically square and align the vertical members. Scaffolds shall be plumb, level, and squared. All brace connections shall be secured.

(i) Scaffolds constructed of tube and coupler components shall also conform to the requirements of § 1926.452(b);

(ii) Scaffolds constructed of fabricated frame components shall also conform to the requirements of § 1926.452(c).

(2) Scaffold casters and wheels shall be locked with positive wheel and/or

wheel and swivel locks, or equivalent means, to prevent movement of the scaffold while the scaffold is used in a stationary manner.

(3) The force used to move the scaffold shall be applied as close to the base as practicable, but not more than five feet (1.5 m) above the supporting surface.

(4) Power systems used to propel mobile scaffolds shall be designed for such use. Forklifts, trucks, or similar motor vehicles shall not be used to propel scaffolds unless the scaffold is designed for such propulsion systems.

(5) Scaffolds shall be stabilized to prevent tipping during movement.

(6) Employees shall not be allowed to ride on scaffolds unless the following conditions exist:

(i) The surface on which the scaffold is being moved shall be within three degrees of level, and free of pits, holes, and obstructions;

(ii) The maximum height to base width ratio of the scaffold during movement shall be two to one or less. Outrigger frames may be included as part of the base width dimension;

(iii) Outrigger frames, when used, shall be installed on both sides of the scaffold;

(iv) When power systems are used, the propelling force shall be applied directly to the wheels, and shall not produce a speed in excess of two feet per second (.61 mps), and

(v) The employees are not on any part of the scaffold which extends outward beyond the wheels, casters, or other supports.

(7) Platforms shall not extend outward past the base supports of the scaffold unless outrigger frames or equivalent devices are used to ensure stability.

(8) Where leveling of the scaffold is required, screw jacks or equivalent means shall be used.

(9) Caster stems and wheel stems shall be pinned or otherwise secured in scaffold legs.

**§ 1926.453–1926.459 [Reserved]**

**§ 1926.460 Training requirements.**

In addition to the requirements of § 1926.21, safety training and education, the following training requirements apply to this subpart. However, the provisions of this section may be cited only when a citation is issued concurrently under the provisions of § 1926.450, § 1926.451 or § 1926.452 of this subpart.

(a) All employees using scaffolds to perform a job task shall be instructed in the proper construction, use, placement and care of the scaffolds they are using,

and the applicable provisions of this subpart.

(b) All employees repairing scaffolds shall be competent individuals trained and familiar with the design criteria, intended use, and proper procedures for repairing the defective component(s).

(c) Suspended scaffolds shall be operated only by persons who have been instructed in the operation, use, and inspection of the particular suspended scaffold being used. Employers shall instruct and supervise their employees in the safe use of all equipment provided.

(d) Training and retraining shall be provided for each employee as necessary.

**Appendix A to Subpart L—Scaffold Specifications**

This Appendix serves as a non-mandatory guideline to assist employers in complying with the requirements of Subpart L. Scaffold components selected and loaded in accordance with the general and specific provisions of this Appendix will be considered as acceptable designs that meet the capacity requirements of § 1926.451(a)(1). Scaffold components which are not selected and loaded in accordance with this Appendix, and components for which no specific guidelines or tables are given in the following Appendix (e.g., joints, ties, components for wood pole scaffolds more than 60 feet in height, components for heavy-duty horse scaffolds, etc.), must be designed and constructed in accordance with the capacity requirements of § 1926.451(a), and loaded in accordance with § 1926.451(d)(1).

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2. Specific guidelines and tables.
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#### 1. General guidelines and tables

(a) The following tables, and the tables in Part B—Specific guidelines and tables, are based on all load-carrying timber members of the scaffold being a minimum of 1,500 lb-ft/in<sup>2</sup> (stress grade) construction grade lumber. All dimensions are nominal sizes as provided in the American Softwood Lumber Standards, dated January 1970, except that where rough sizes are noted, only rough or undressed lumber of the size specified will satisfy minimum requirements.

(b) All wood planking shall be selected for scaffold plank use as recognized by grading rules established by a recognized independent inspection agency for the species of wood used. The maximum permissible spans for 2 x 10 inch (nominal) or 2 x 9 inch (rough) solid sawn wood planks shall be as shown in the following table:

Maximum intended load (lb/ft <sup>2</sup> )	Maximum permissible span using full thickness undressed lumber (ft)	Maximum permissible span using nominal thickness lumber (ft)
25	10	8
50	8	6
75	6	

The maximum permissible span for 1 1/4 x 9-inch or wider wood plank of full thickness with a maximum intended load of 50 lb/ft<sup>2</sup> shall be four feet.

(c) Fabricated planks and platforms may be used in lieu of solid sawn wood planks. Maximum spans for such units shall be as recommended by the manufacturer based on the maximum intended load being calculated as follows:

Rated load capacity	Intended load
Light-duty	25 pounds per square foot applied uniformly over the entire span area.
Medium-duty	50 pounds per square foot applied uniformly over the entire span area.
Heavy-duty	75 pounds per square foot applied uniformly over the entire span area.
One-person	250 pounds placed at the center of the span (total 250 pounds).
Two-person	250 pounds placed 18 inches to the left and right of the center of the span (total 500 pounds).
Three-person	250 pounds placed at the center of the span and 250 pounds placed 18 inches to the left and right of the center of the span (total 750 pounds).

**Note.**—Platform units used to make scaffold platforms intended for light-duty use shall be capable of supporting at least 25 pounds per square foot applied uniformly over the entire unit-span area, or a 250-pound point load placed on the unit at the center of the span, whichever load produces the greater shear force.

(d) Guardrails shall be as follows:

(i) Toprails shall be equivalent in strength to 2 inch by 4 inch lumber;

1 1/4 inch x 1/2 inch structural angle iron;  
1 inch x .070 inch wall steel tubing; or  
1.990 inch x .058 inch wall aluminum tubing.

(ii) Midrails shall be equivalent in strength to 1 inch by 6 inch lumber;

1 1/4 inch x 1/2 inch structural angle iron;  
1 inch x .070 inch wall steel tubing; or  
1.990 inch x .058 inch wall aluminum tubing.

(iii) Toeboards shall be equivalent in strength to 1 inch by 4 inch lumber;  
1 1/4 inch x 1 1/4 inch structural angle iron;  
1 inch x .070 inch wall steel tubing; or  
1.990 inch x .058 inch wall aluminum tubing.

(iv) Posts shall be equivalent in strength to 2 inch by 4 inch lumber;

1 1/4 inch x 1 1/4 inch x 1/2 inch structural angle iron;  
1 inch x .070 inch wall steel tubing; or  
1.990 inch x .058 inch wall aluminum tubing.

(v) Distance between posts shall not exceed 8 feet.

(e) Overhead protection shall consist of 2 inch nominal planking laid tight, or 3/4-inch plywood.

(f) Screen installed between toeboards and midrails or top rails shall consist of No. 18 gauge U.S. Standard wire one inch mesh.

#### 2. Specific guidelines and tables.

(a) Pole scaffolds.

#### SINGLE POLE WOOD POLE SCAFFOLDS

	Light duty up to 20 ft. high	Light duty up to 60 ft. high	Medium duty up to 60 ft. high	Heavy duty up to 60 ft. high
Maximum intended load	25 lbs/ft <sup>2</sup>	25 lbs/ft <sup>2</sup>	50 lbs/ft <sup>2</sup>	75 lbs/ft <sup>2</sup>
Poles or uprights	2 x 4 in.	4 x 4 in.	4 x 4 in.	4 x 6 in.
Maximum pole spacing (longitudinal)	6 ft.	10 ft.	8 ft.	6 ft.
Maximum pole spacing (transverse)	5 ft.	5 ft.	5 ft.	5 ft.
Ledgers	1 x 4 in.	1 1/4 x 9 in.	2 x 10 in.	2 x 10 in.
Bearers and maximum spacing of bearers:				
3 ft.	2 x 4 in.	2 x 4 in.	2 x 10 in or 3 x 4 in.	2 x 10 in or 3 x 5 in.
5 ft.	2 x 6 in, 3 x 4 in.	2 x 6 in or 3 x 4 in (rough)	2 x 10 in, 3 x 4 in.	2 x 10 in, 3 x 5 in.
6 ft.			2 x 10 in or 3 x 4 in.	2 x 10 in or 3 x 5 in.
8 ft.			2 x 10 in or 3 x 4 in.	2 x 10 in.
Planking	1 1/4 x 9 in.	2 x 10 in.	2 x 10 in.	2 x 10 in.
Maximum vertical spacing of horizontal members	7 ft.	9 ft.	7 ft.	6 ft 6 in.
Bracing—horizontal	1 x 4 in.	1 x 4 in.	1 x 6 in or 1 1/4 x 4 in.	2 x 4 in.
Bracing—diagonal	1 x 4 in.	1 x 4 in.	1 x 4 in.	2 x 4 in.
Tie-ins	1 x 4 in.	1 x 4 in.	1 x 4 in.	1 x 4 in.

**Note.**—All members except planking are used on edge. All wood bearers shall be reinforced with 3/8 x 2 in steel strip, or the equivalent, secured to the lower edges for the entire length of the bearer.

#### INDEPENDENT WOOD POLE SCAFFOLDS

	Light duty up to 20 ft. high	Light duty up to 60 ft. high	Medium duty up to 60 ft. high	Heavy duty up to 60 ft. high
Maximum intended load	25 lbs/ft <sup>2</sup>	25 lbs/ft <sup>2</sup>	50 lbs/ft <sup>2</sup>	75 lbs/ft <sup>2</sup>
Poles or uprights	2 x 4 in.	4 x 4 in.	4 x 4 in.	4 x 4 in.
Maximum pole spacing (longitudinal)	6 ft.	10 ft.	8 ft.	6 ft.
Maximum pole spacing (transverse)	6 ft.	10 ft.	8 ft.	8 ft.
Ledgers	1 1/4 x 4 in.	1 1/4 x 9 in.	2 x 10 in.	2 x 10 in.
Bearers and maximum spacing of bearers:				
3 ft.	2 x 4 in.	2 x 4 in.	2 x 10 in.	2 x 10 in (rough).
6 ft.	2 x 6 in or 3 x 4 in.	2 x 10 in (rough) or 3 x 8 in.	2 x 10 in.	2 x 10 in (rough).
8 ft.	2 x 6 in or 3 x 4 in.	2 x 10 in (rough) or 3 x 8 in.	2 x 10 in.	
10 ft.	2 x 6 in or 3 x 4 in.	2 x 10 in (rough) or 3 x 3 in.	2 x 10 in.	
Planking	1 1/4 x 9 in.	2 x 10 in.	2 x 10 in.	2 x 10 in.
Maximum vertical spacing of horizontal members	7 ft.	7 ft.	6 ft.	6 ft.
Bracing—horizontal	1 x 4 in.	1 x 4 in.	1 x 6 in or 1 1/4 x 4 in.	2 x 4 in.

## INDEPENDENT WOOD POLE SCAFFOLDS—Continued

	Light duty up to 20 ft. high	Light duty up to 60 ft. high	Medium duty up to 60 ft. high	Heavy duty up to 60 ft. high
Bracing—diagonal .....	1 x 4 in. ....	1 x 4 in. ....	1 x 4 in. ....	2 x 4 in. ....
Tie-ins .....	1 x 4 in. ....	1 x 4 in. ....	1 x 4 in. ....	1 x 4 in. ....

Note.—All members except planking are used on edge. All wood bearers shall be reinforced with  $\frac{3}{16}$  x 2 in steel strip, or the equivalent, secured to the lower edges for the entire length of the bearer.

## (b) Tube and coupler scaffolds.

## MINIMUM SIZE OF MEMBERS

	Light duty	Medium duty	Heavy duty
Maximum intended load .....	25 lbs/ft <sup>2</sup> .....	50 lbs/ft <sup>2</sup> .....	75 lbs/ft <sup>2</sup> .....
Posts, runners and braces .....	Nominal 2 in (1.90 in) OD steel tube or pipe.....	Nominal 2 in (1.90 in) OD steel tube or pipe.....	Nominal 2 in (1.90 in) OD steel tube or pipe.....
Bearers .....	Nominal 2 in (1.90 in) OD steel tube or pipe and a maximum post spacing of 6 ft by 10 ft <sup>2</sup> .....	Nominal 2 in (1.90 in) OD steel tube or pipe and a maximum post spacing of 5 ft by 8 ft <sup>2</sup> ..... or Nominal 2½ in (2.375 in) OD steel tube or pipe and a maximum post spacing of 6 ft by 8 ft <sup>2</sup> .....	Nominal 2½ in (2.375 in) OD steel tube or pipe and a maximum post spacing of 6 ft by 6 ft.....
Maximum runner spacing vertically.....	6 ft 6 in.....	6 ft 6 in.....	6 ft 6 in.....

\*Bearers shall be installed in the direction of the shorter dimension.

Note.—Longitudinal diagonal bracing shall be installed at an angle of 45° (±5°).

## MAXIMUM NUMBER OF PLANKED LEVELS:

	Maximum number of additional planked levels			Maximum height of scaffold
	Light duty	Medium duty	Heavy duty	
Number of working levels .....				
1 .....	16	11	8	125 ft.
2 .....	11	1	0	Do.
3 .....	6	0	0	Do.
4 .....	1	0	0	Do.

## Horizontal members or bearers:

Light duty .....	2 x 4 in.
Medium duty .....	3 x 4 in.
Legs .....	2 x 4 in.
Longitudinal brace between legs.....	1 x 6 in.
Gusset brace at top of legs .....	1 x 8 in.
Half diagonal braces .....	2 x 4 in.

\*Horses shall be spaced not more than eight feet apart for light duty loads, and not more than five feet apart for medium duty loads.

## (g) Form scaffolds and carpenters' bracket scaffolds.

(1) Brackets shall consist of a triangular-shaped frame made of wood with a cross-section not less than 2 inches by 3 inches, or of 1½ inch x 1¼ inch x ½ inch structural angle iron.

(2) Bolts used to attach brackets to structures shall not be less than five-eighth inch in diameter.

(3) Maximum bracket spacing shall be eight feet on centers.

(4) No more than two employees shall occupy any given eight feet of a bracket or form scaffold at any one time. Tools and materials shall not exceed 75 pounds in addition to the occupancy.

## (5) Wooden figure-four scaffolds:

Maximum intended load.....	25 pounds/square foot.
Uprights .....	2 x 4 in. or 2 x 6 in.
Bearers (two) .....	1 x 6 in.
Braces .....	1 x 6 in.
Maximum length of bearers.....	3 ft 6 in. (unsupported).

Outrigger bearers shall consist of two pieces of 1 x 6 inch lumber nailed on opposite sides of the vertical support.

Bearers for wood figure four brackets shall project not more than three feet six inches from the outside of the form support, and shall be braced and secured to prevent tipping or turning. The knee or angle brace shall intersect the bearer at least three feet from the form at an angle of approximately 45 degrees, and the lower end shall be nailed to a vertical support.

## (6) Metal bracket scaffolds:

Maximum intended load.....	25 pounds/square foot.
Uprights .....	2 x 4 in.
Bearers .....	As designed.
Braces .....	As designed.

## (g) Wood bracket scaffolds:

Maximum intended load.....	25 pounds/square foot.
Uprights .....	2 x 4 in. or 2 x 6 in.
Bearers .....	2 x 6 in.
Maximum scaffold width.....	3 ft 6 in.
Braces .....	1 x 6 in.

(h) Roof bracket scaffolds. No specific guidelines or tables are given.

## (i) Outrigger scaffolds (single level).

Outrigger beams shall extend not more than six feet beyond the face of the building.

	Light duty	Medium duty
Maximum intended load.....	25 lb/ft <sup>2</sup> .....	50 lb/ft <sup>2</sup> .....
Outrigger size .....	2 x 10 in.....	3 x 10 in.....
Maximum outrigger spacing.....	10 ft.....	6 ft.....

(j) Pump jack scaffolds. Wood poles shall not exceed 30 feet in height. Maximum intended load—500 lbs between poles; applied at the center of the span. Not more

(c) Fabricated frame scaffolds. Because of their prefabricated nature, no specific guidelines or tables are given.

(d) Plasterers', decorators', and large area scaffolds. These scaffolds shall be constructed in accordance with the guidelines for pole scaffolds, tube and coupler scaffolds, or fabricated frame scaffolds.

## (e) Bricklayers' square scaffolds.

Maximum intended load .....	50 lb/ft <sup>2</sup> .....
Maximum width .....	5 feet.
Maximum height .....	5 feet.
Gussets .....	1 x 6 in.
Braces .....	1 x 8 in.
Legs .....	2 x 6 in.
Bearers (horizontal members) .....	2 x 6 in.

\*The squares shall be set not more than eight feet apart for light duty scaffolds and not more than five feet apart for medium duty scaffolds.

## (f) Horse scaffolds.

Maximum intended load (light duty).....	25 lb/ft <sup>2</sup> .....
Maximum intended load (medium duty).....	50 lb/ft <sup>2</sup> .....

than two employees shall be upon a pump jack scaffold at one time between any two supports.

When 2 x 4's are spliced together to make a 4 x 4 inch wood pole, they shall be spliced with 10d common nails no more than 12 inches center to center, staggered uniformly from the opposite outside edges.

(k) *Ladder jack scaffolds.* Maximum intended load—25 lb/ft<sup>2</sup>. However, not more than two employees shall occupy any platform at any one time. Maximum span between supports shall be eight feet.

(l) *Window jack scaffolds.* Not more than one employee shall occupy a window jack scaffold at any one time.

(m) *Crawling boards (chicken ladders).* Crawling boards shall be not less than 10 inches wide and one inch thick, with cleats having a minimum 1 x 1½ inch cross-sectional area. The cleats shall be equal in length to the width of the board and spaced at equal intervals not to exceed 24 inches.

(n) *Step, platform, and trestle ladder scaffolds.* No specific guidelines or tables are given.

(o) *Single-point adjustable suspension scaffolds.* Maximum intended load—250 lbs.

Wood seats for boatswains' chairs shall be not less than one inch thick if made of non-laminated wood, or five-eighth inch thick if made of marine quality plywood.

(p) *Two-point adjustable suspension scaffolds.* (1) In addition to direct connections to buildings (except window cleaners' anchors) acceptable ways to prevent scaffold sway include angulated roping and static lines. Angulated roping is a system of platform suspension in which the upper wire rope sheaves or suspension points are closer to the plane of the building face than the corresponding attachment points on the platform, thus causing the platform to press against the face of the building. Static lines are separate ropes secured at their top and bottom ends closer to the plane of the building face than the outermost edge of the platform. By drawing the static line taut, the platform is drawn against the face of the building.

(2) On suspension scaffolds designed for a working load of 500 pounds, no more than

two employees shall be permitted on the scaffold at one time. On suspension scaffolds with a working load of 750 pounds, no more than three employees shall be permitted on the scaffold at one time.

(3) *Ladder-type platforms.* The side stringer shall be of clear straight-grained spruce. The rungs shall be of straight-grained oak, ash, or hickory, at least one and one-eighth inches in diameter, with seven-eighth inch tenons mortised into the side stringers at least seven-eighth inch. The stringers shall be tied together with tie rods not less than one-fourth inch in diameter, passing through the stringers and riveted up tight against washers on both ends.

The flooring strips shall be spaced not more than five-eighth inch apart, except at the side rails where the space may be one inch. Ladder-type platforms shall be constructed in accordance with the following table:

SCHEDULE FOR LADDER-TYPE PLATFORMS

Length of platform.....	12 ft.....	14 & 16 ft.....	18 & 20 ft.....
Side stringers, minimum cross section (finished sizes):			
At ends.....	1½ x 2¼ in.....	1½ x 2¼ in.....	1½ x 3 in.....
At middle.....	1½ x 3¼ in.....	1½ x 3¼ in.....	1½ x 4 in.....
Reinforcing strip (minimum): A ¼ x ¾ inch steel reinforcing strip shall be attached to the side or underside, full length.			
Rungs: Rungs shall be 1½ inch minimum diameter with at least ¾ inch in diameter tenons, and the maximum spacing shall be 12 inches to center.			
Tie rods:			
Number (minimum).....	3.....	4.....	4.....
Diameter (minimum).....	¼ in.....	¼ in.....	¼ in.....
Flooring, minimum finished size.....	½ x 2¼ in.....	½ x 2¼ in.....	½ x 2¼ in.....

SCHEDULE FOR LADDER-TYPE PLATFORMS

Length of platform.....	22 and 24 ft.....	28 and 30 ft.....
Side stringers, minimum cross section (finished sizes):		
At ends.....	1½ x 3 in.....	1½ x 3½ in.....
At middle.....	1½ x 4¼ in.....	1½ x 5 in.....
Reinforcing strip (minimum): A ¼ x ¾ inch steel reinforcing strip shall be attached to the side or underside, full length.		
Rungs: Rungs shall be 1½ inch minimum diameter with at least ¾ inch in diameter tenons, and the maximum spacing shall be 12 inches to center.		
Tie rods:		
Number (minimum).....	5.....	6.....
Diameter (minimum).....	¼ in.....	¼ in.....
Flooring, minimum finished size.....	½ x 2¼ in.....	½ x 2¼ in.....

(4) *Plank-Type Platforms.* Plank-type platforms shall be composed of not less than nominal 2 x 8 inch unspliced planks, connected together on the underside with cleats at intervals not exceeding four feet, starting six inches from each end. A bar or other effective means shall be securely fastened to the platform at each end to prevent the platform from slipping off the hanger. The span between hangers for plank-type platforms shall not exceed 10 feet.

(5) *Beam-Type Platforms.* Beam platforms shall have side stringers of lumber not less than 2 x 6 inches set on edge. The span between hangers shall not exceed 12 feet when beam platforms are used. The flooring shall be supported on 2 x 6 inch cross beams, laid flat and set into the upper edge of the stringers with a snug fit, at intervals of not more than four feet, securely nailed in place.

The flooring shall be of 1 x 8 inch material nailed to the cross beams. Floor-boards shall not be spaced more than one-half inch apart.

(q)(1) *Multi-point adjustable suspension scaffolds and stonesetters' multi-point adjustable suspension scaffolds.*

No specific guidelines or tables are given for these scaffolds.

(q)(2) *Masons' multi-point adjustable suspension scaffolds.* Maximum intended load—50 lb/ft<sup>2</sup>. Each outrigger beam shall be at least a standard seven inch, 15.3 pound steel I-beam, at least 15 feet long. Such beams shall not project more than six feet six inches beyond the bearing point. Where the overhang exceeds six feet six inches, outrigger beams shall be composed of stronger beams or multiple beams.

(r) *Catenary scaffolds.* (1) Maximum intended load—500 lbs.

(2) Not more than two employees shall be permitted on the scaffold at one time.

(3) Maximum capacity of comcalong shall be 2,000 lbs.

(4) Vertical pickups shall be spaced not more than 50 feet apart.

(s) *Float (ship) scaffolds.* (1) Maximum intended load—750 lbs.

(2) Platforms shall be made of three-fourth inch plywood, equivalent in rating to American Plywood Association Grade B-B, Group I, Exterior.

(3) Bearers shall be made from 2 x 4 inch, or 1 x 10 inch rough lumber. They shall be free of knots and other flaws.

(t) *Interior hung scaffolds.*

Bearers (use on edge)..... 2 x 10 in.

Maximum intended load .....	Maximum span.
25 lb/ft <sup>2</sup> .....	10 ft.
50 lb/ft <sup>2</sup> .....	10 ft.
75 lb/ft <sup>2</sup> .....	7 ft.
(u) <i>Needle beam scaffolds.</i>	
Maximum intended load .....	25 lb/ft <sup>2</sup> .
Beams .....	4 x 6 in.
Maximum platform span .....	8 ft.
Maximum beam span .....	10 ft.

Ropes shall be attached to the needle beams by a scaffold hitch or an eye splice. The loose end of the rope shall be tied by a bowline knot or by a round turn and a half hitch.

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**Test Report**

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**Tuesday**  
**November 25, 1986**

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**Part III**

**Department of Labor**

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**Occupational Safety and Health  
Administration**

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**29 CFR Part 1926**

**Safety Standards for Fall Protection in  
the Construction Industry; Notice of  
Proposed Rulemaking**

**DEPARTMENT OF LABOR****Occupational Safety and Health Administration****29 CFR Part 1926****[Docket No. S-206]****Safety Standards for Fall Protection in the Construction Industry****AGENCY:** Occupational Safety and Health Administration, Labor.**ACTION:** Notice of Proposed Rulemaking.

**SUMMARY:** The Occupational Safety and Health Administration (OSHA) proposes to revise the construction industry safety standards addressing fall protection. The standards proposed for revision regulate the design and use of fall protection systems and procedures used in construction to prevent employees from falling into or through working levels, falling to lower levels, and to protect employees from falling objects.

The proposed revisions are intended to correct problems found in the existing standards which regulate in detail the specific methods to be used to reduce employee exposure to the hazards of falling and of being struck by falling objects. The proposed revisions would continue to address the hazards to which employees are exposed, but would do so using performance criteria where possible, rather than specification standards. The proposed revisions would also consolidate and simplify many of the existing provisions. For example, paragraph § 1926.104 Safety belts, lifelines, and lanyards, and paragraph § 1926.105 Safety nets, would be relocated to the proposed subpart. This approach is another step in OSHA's plan to review its safety standards and to revise them as necessary to provide safer working conditions without imposing unnecessarily burdensome requirements. This proposal is being issued after appropriate consultation with the Advisory Committee on Construction Safety and Health (ACCSH).

**DATES:** Comments on this proposed rulemaking must be postmarked by February 23, 1987. Hearing requests must be postmarked by February 23, 1987.

**ADDRESS:** Written comments and requests for hearings should be sent to the Docket Officer, Docket No. S-206, U.S. Department of Labor, Room N-3670, 200 Constitution Avenue, NW., Washington, DC 20210.

**FOR FURTHER INFORMATION CONTACT:** Mr. James Foster, Occupational Safety and Health Administration, U.S.

Department of Labor, Room N-3637, 200 Constitution Avenue, NW., Washington, DC 20210, Telephone (202) 523-8151.

**SUPPLEMENTARY INFORMATION:** The author of this proposed rulemaking is Roy F. Gurnham, Office of Construction and Civil Engineering Safety Standards, Occupational Safety and Health Administration.

**I. Background**

Congress amended the Contract Work Hours Standards Act (CWHSA) (40 U.S.C. 327 et seq.) in 1969 by adding a new section 107 (40 U.S.C. 333) to provide employees in the construction industry with a safer work environment and to reduce the frequency and severity of construction accidents and injuries. The amendment, commonly known as the Construction Safety Act (CSA) (Pub. L. 91-54; August 9, 1969), significantly strengthened employee protection by providing occupational safety and health standards for employees of the building trades and construction industry working on Federally-financed or Federally-assisted construction projects. Accordingly, the Secretary of Labor issued Safety and Health Regulations for Construction in 29 CFR Part 1518 (36 FR 7340, April 17, 1971) pursuant to section 107 of the Contract Work Hours and Safety Standards Act.

The Occupational Safety and Health Act (the Act) (84 Stat. 1590; 29 U.S.C. 651 et seq.), was enacted by Congress in 1970 and authorized the Secretary of Labor to adopt established Federal standards issued under other statutes, including the Construction Safety Act, as occupational safety and health standards. Accordingly, the Secretary of Labor adopted the Construction Standards, which had been issued under the Construction Safety Act in 29 CFR Part 1518, in accordance with section 6(a) of the Act (36 FR 10466, May 29, 1971). The Safety and Health Regulations for Construction were redesignated as Part 1926 later in 1971 (36 FR 25232, December 30, 1971).

The standards in Subpart E—Personal Protective Equipment, including § 1926.104—Safety Belts, Lifelines, and Lanyards, and § 1926.105—Safety Nets, were among the standards adopted by OSHA through the section 6(a) process. The standards in Subpart M—Floor and Wall Openings, and Stairways § 1926.500, were also adopted by OSHA through the section 6(a) process and have been amended several times under section 6(b) of the OSH Act. The above mentioned provisions in Subparts E and M of Part 1926 relate to fall protection and are the subject of this proposed revision.

As part of OSHA's continuing program of standards evaluation and in response to public comments, a complete review of Subpart M was begun in 1977. Since then, the ACCSH has reviewed Subpart M six times and has submitted transcripts of these meetings, including recommendations, to the Assistant Secretary. The transcripts are part of the public record as Exhibit

1. The Committee's recommendations, and those of other interested parties, have been carefully analyzed in connection with the present rulemaking. Many of the changes in the standard being proposed reflect the recommendations and suggestions of the Advisory Committee and interested persons. Relevant ACCSH comments are discussed below in the Summary and Explanation section. Committee discussions that were inconclusive or did not produce a specific recommendation have also been considered, but are not discussed in this preamble.

OSHA believes that many of the existing provisions relating to fall protection are redundant or ambiguous, and in some places may actually increase employee exposure to fall hazards. Other provisions simply are not feasible in all situations. To eliminate these problems and to encourage compliance by employers and employees, this proposal focuses on the principal hazards involved when working in elevated areas. In addition, the proposal has been written in performance-oriented language. This proposal also incorporates directly relevant provisions of the general industry standards (Part 1910) which have been determined by OSHA to be applicable to the construction industry.

For purposes of organization, the topic of stairways will be relocated from existing Subpart M to a proposed revised Subpart X titled "Stairways and Ladders." These two subparts, along with a revised Subpart L, retitled "Scaffolds," constitute a package of interrelated standards which have been rewritten and reorganized to facilitate treatment of the individual subjects. OSHA intends to coordinate the rulemaking activities for these three subparts, and hopes to make the final rules for all three subparts effective at the same time.

OSHA believes that the clarified and revised language of the proposal will help employers to understand the requirements of Subpart M, and will improve safety by minimizing subjective interpretations of the provisions. By minimizing, if not eliminating, the interpretations needed to understand

the requirements of Subpart M, OSHA intends to provide fair and equal notice to all employers of the rules for fall protection.

This project is also being coordinated with the project for the revision of related general industry standards in 29 CFR Part 1910 Subpart D—Walking/Working Surfaces. Wherever possible, the 1910 and 1926 proposals use the same language to address similar hazards in order to promote consistency between the two sets of standards.

## II. Hazards Involved

Fall accidents resulting in injuries and fatalities continue to occur at construction sites despite the development and promulgation of the OSHA Construction Standards in 1971. Examination of available data indicate that these accidents appear to be primarily the result of non-compliance with existing OSHA standards, and not because the standards improperly address the fall hazards involved in construction. However, after review of compliance problems and public comments received since 1972, OSHA believes that the present standard needs updating to clarify the requirements of some currently ambiguous and confusing provisions. In addition, OSHA believes that reformatting the requirements into a more logical grouping of topics will allow employers to more easily determine what they must do.

Precise fall hazard accident data for the entire construction industry are not available. Falls are reported according to the nature of the injury and the surface involved, but no match is made between the two categories. In addition, although the number of construction fall accidents can be estimated for a given period of time, the ratio of accidents to the amount of employee exposure to fall hazards cannot be readily determined. However, based upon the limited data which have been compiled, it can be estimated that as many as 41,000 injuries due to falls from elevations covered under Subpart M occurred in 1979 alone, not including those falls which resulted in fatalities (Ex. 2: Table IV-1).

Although specific accident ratios cannot be projected for the 4 million construction workers potentially covered by Subpart M, the following examples of recorded accidents illustrate the types of fall accidents that injure and kill construction employees. The list reflects selected examples and is not intended to represent all the types of falls that occur.

- August 26, 1977: Fatality. While installing shingles on a roof with a pitch

greater than 4 in 12, an employee lost his balance and fell 16 feet to his death (Ex. 3:19). Observance of existing provisions § 1926.28(a) and § 1926.104, or the clarified language of proposed paragraph § 1926.501(c), might have prevented this death by protecting the employee with a body belt or harness system.

- October 17, 1976: Fatality. While painting near a roof edge, an employee slipped and fell 50 feet to the ground below. Although told to wear a body belt prior to the accident, the employee was not wearing a body belt at the time of the accident (Ex. 3:21). Observance of existing provisions § 1926.28(a) and § 1926.104, or the clarified language of proposed paragraphs § 1926.501(b)(1) and (c), might have prevented this death by protecting the employee with a body belt, body harness, safety net, or guardrail system.

- December 5, 1974: Fatality. While leaning out over the roof edge to reach an object on the end of a hoist, an employee lost his balance and fell 30 feet (Ex. 3:22). Observance of existing provisions § 1926.28(a) and § 1926.104, or the clarified language of proposed paragraph § 1926.501(b)(3), might have prevented this death by protecting the employee with a body belt or body harness system during hoist operations.

- May 17, 1977: Fatality. While cleaning up the work area, an employee lost his balance near the edge and fell 25 feet (Ex. 3:13). Observance of existing provision § 1926.500(d)(1), or the proposed paragraph § 1926.501(b)(1), might have prevented this accident by protecting the employee with a guardrail system while working near a floor edge.

- November 12, 1977: Fatality. While walking backward pulling a hot tar spreader, an employee stepped into an unguarded roof opening and fell 25 feet (Ex. 3:35). Observance of existing provision § 1926.500(b)(1), or the proposed paragraph § 1926.501(b)(4), might have prevented this accident by protecting the employee with a guardrail system or a cover placed over the roof opening.

A study of 99 fall related fatalities (Ex. 2) suggests that almost all of the deaths could have been prevented by the use of guardrails, body belts, body harnesses, safety nets, covers, or other means which would reduce employee exposure to the fall hazard. All such accidents are complex events, of course, and multiple issues must be addressed in order to protect against the human and equipment factors which can result in injury or death. Among these issues are knowledge of where protection is required; the types of appropriate systems for given situations; the proper

construction and installation of safety systems; and proper supervision, work procedures, and training. Each of these topics is covered in the proposed revisions to Subpart M. The proposal concentrates on hazard identification and includes specific training requirements to supplement the general training provisions of § 1926.21. In addition to clarifying the existing provisions, the proposal provides coverage not contained in the existing Subpart M. For example, steep roofs are not identified in the existing Subpart, but are covered in the proposal.

For a further discussion of accident rates and significance of risk, see Section IV. *Preliminary Regulatory Impact Assessment and Regulatory Flexibility Analysis*.

## III. Summary and Explanation of the Proposal

The following discussion explains significant substantive changes to the existing standard.

**Subpart M—Fall Protection.** The title of Subpart M is proposed to be changed from "Floor and Wall Openings, and Stairways" to "Fall Protection." The existing standard contains provisions which regulate fall protection in many areas and not just for floors, wall openings, and stairways. For example, roofs, floor perimeters, floor holes, dangerous equipment, ramps, runways, and stairway construction are all included in the existing scope of Subpart M. However, the existing title does not reflect this scope of coverage. The proposed title for Subpart M more accurately reflects the topics covered, i.e., fall protection systems and practices. In addition, to make Subpart M a more comprehensive set of fall protection standards for construction, the provisions of § 1926.104—Safety belts, lifelines, and lanyards; § 1926.105—Safety nets; and the current fall protection provisions of paragraphs § 1926.651(t), § 1926.651(w), § 1926.700(b)(1), would all be revised and relocated to Subpart M. As discussed earlier, the topic of stairways is proposed to be relocated to a new revised Subpart X—Stairways and Ladders, as this topic also includes other rules which are not related to fall protection.

In the following discussion, a paragraph citation preceded by the letter "E" refers to a paragraph in the existing standard. All other citations are to the proposed standard.

**§ 1926.500 Scope, application, and definitions applicable to this subpart.** Paragraph § 1926.500(a) outlines the scope and application of the entire

Subpart M. The proposal would apply to all walking/working surfaces found in construction, alteration, repair (including painting and decorating), and demolition workplaces except for five specific areas: Fall protection for scaffolds would be as provided in proposed Subpart L—Scaffolds. The requirement to have fall protection on specified pieces of construction equipment would remain in Subpart N—Cranes, Derricks, Hoists, Elevators, and Conveyors, and Subpart O—Motor Vehicles, Mechanized Equipment, and Marine Operations; however, the systems required by Subparts N and O would have to conform to the provisions of proposed Subpart M. Additional requirements to have fall protection for connectors and for workers on derrick and erection floors during steel erection would remain in Subpart R—Steel Erection. Similarly, the requirement to have fall protection during tunnel operations is contained in Subpart S—Tunnels and Shafts, Caissons, Cofferdams, and Compressed Air. Additional requirements for fall protection during power transmission and distribution work would remain in Subpart V—Power Transmission and Distribution. Fall protection for stairways and ladders would be placed in a new proposed Subpart X titled "Stairways and Ladders." All activities and locations not specifically addressed in the above subparts would be governed by the provisions of Subpart M.

The scope of Subpart M is limited in paragraph § 1926.500(a)(1) by providing that fall protection is not required when employees are inspecting, investigating, or assessing workplace conditions. An example of this kind of work is where an employee goes onto a roof which needs to be repaired in order to investigate the existing condition of the roof and to estimate the amount of work involved. During this inspection, there is no requirement for the employee to be protected by a guardrail, body belt, body harness, safety net, or other safety system. This exception is made because these operations are normally conducted in good weather, the nature of such work normally exposes the employee to the fall hazard for a short time, if at all, and installation of fall protection systems for short durations is not feasible without exposing the installers of the system to the same hazard, but for a longer time. In addition, employees doing this type of work are more likely to be aware of their proximity to an unprotected edge than, for example, a roofer who is moving backwards while operating a felt laying machine, or a

plumber whose attention is on overhead pipe and not on the floor edge.

Paragraph § 1926.500(b) lists and defines all major words used in the proposed standard. Many of the definitions are the same as those in the existing standard, although some have been reworded for uniformity or clarity. The following words have been added or have been changed from the existing definitions:

"Body belt." This definition replaces the existing term "safety belt" to reflect current industry use of the new term.

"Body belt/harness systems." This term is used to describe any combination of body belt or body harness, and lifelines, lanyards, and deceleration devices.

"Body harness." This term is used to describe a system of straps, worn by an individual, that distributes the arresting forces, generated by a fall, over the individual's thighs, shoulders, and pelvis.

"Built-up roofing." The description of single-ply systems is reworded to indicate that a layer of adhesive is often part of the finished product, but not always. The definition is also reworded to indicate that any of the systems described may be covered by a layer of mineral aggregate, not just the multiple-ply systems.

"Control zones." This term refers to designated areas where overhand bricklaying operations are taking place or a leading edge is being constructed. In these areas, conventional fall protection systems (body belts, safety nets, and guardrails) would not be required, and access to these areas would be restricted to employees performing the aforementioned operations (see discussion of § 1926.501(b) (2) and (9) below).

"Dangerous equipment." This term is used to refer to equipment such as galvanizing tanks, machinery, electrical equipment and similar hazards.

"Deceleration device." This term describes the equipment used to bring a falling employee to a stop without injury.

"Deceleration distance." This term is used to describe the distance an employee falls (excluding lifeline elongation) after free falling.

"Equivalent." This term is used in the proposal to allow alternative means of complying with the standards. The definition makes clear that the employer must demonstrate that all alternative means of compliance will provide an equal or greater degree of safety than that attained by using the method or item specified in the standard.

"Failure." This word is used in performance-oriented paragraphs such as §§ 1926.502 (b)(3) and (b)(4) dealing with guardrail strength. The definition makes it clear that, along with breakage and separation of component parts, load refusal (the point where the ultimate strength of a component is exceeded) is also considered to be failure. This is the point where structural members lose their ability to carry loads.

"Force factor" means the ratio of the arresting force generated on a rigid metal object to the arresting force generated on a human body having the same weight as the object, when the object and body fall under identical conditions. This factor is used to convert test results (see Appendix C) using a rigid metal object to results which would be expected if a human test subject of the same weight were used in the test.

"Free fall distance." This term is used to describe the distance an employee moves during a fall before a deceleration device is activated.

"Guardrail system." This term, which defines guardrails as vertical barriers erected to prevent employees from falling, replaces the existing term "standard railing."

"Hole." This term is used to identify all holes and openings in floors, roofs, and other walking/working surfaces. The existing standard addresses holes and openings as separate topics; however, the treatment of each is essentially the same. Therefore, to eliminate confusion, the proposal uses the word "hole" to describe all holes and openings in floors, roofs, and other walking/working surfaces. The term "opening" in the proposal applies only to holes and openings in walls. Specifically, the term "hole" is defined as any hole or other opening more than two inches in its least dimension. This is a change from the one inch dimension used in the existing definition for "floor hole." This change is made to address more reasonably the problem caused by small holes at a construction site. Small holes are commonplace during construction and it is neither necessary nor feasible to guard each one. Holes less than two inches wide do not pose a significant hazard and the definition is changed accordingly.

"Leading edge." This new term is used to describe that portion of a floor, roof, or formwork which is under construction and where, consequently, the edge from which employees could fall is constantly changing location as construction progresses. (See discussion of leading edges in the explanation of paragraph § 1926.501(b)(2) below.)

"Lower levels." This term is used to describe the areas to which an employee could fall. The definition does not apply to the surface on which the employee is performing work duties.

"Mechanical equipment." This term is essentially the same as E § 1926.502(p)(4) except the proposed wording clarifies that this term applies only to built-up roofing work.

"Overhand bricklaying." This activity is identified in paragraph § 1926.501(b)(3) as having unique fall protection requirements. This definition clarifies the activities involved.

"Positioning device system." This new term identifies a piece of equipment used in construction which allows an employee to work with both hands free while the employee is standing in such a way (such as leaning backward) that a fall could result. Such devices are often used on formwork construction and concrete rebar placement.

"Steep roof." This refers to roofs with slopes greater than "low-pitched" roofs.

"Unprotected sides and edges." This term is essentially the same as existing definition E § 1926.502(p) which says that such areas on roofs are those where there is no wall three feet or more in height. However, the new definition has been broadened to include guardrail systems as well as walls, and applies to definitions to floors and other walking/working surfaces as well as roofs. The new definition also replaces the existing three foot limit with a 39 inch limit. The new limit conforms to the lower limit for guardrail height specified in paragraph § 1926.502(b)(1).

"Walking/working surface." This term is used to clarify the scope of the standard's application and includes all surfaces except ladders, vehicles, and trailers. However, the scope limitations discussed in paragraph § 1926.500(a) still apply.

"Warning line system." This term is used to describe a fall protection system which may be used to protect roofers during the application of built-up roofing on low-pitched roofs.

*§ 1926.501 Requirements to have fall protection.* This section specifies the places and areas where fall protection systems would be required. The specifics of the fall protection systems, and the training necessary to use the systems properly, are covered in succeeding §§ 1926.502 and 1926.503, respectively.

*Paragraph 1926.501(a) General.* This proposed paragraph requires that all fall protection systems required by § 1926.501 conform to § 1926.502.

*Paragraph 1926.501(b) Floors, low-pitched roofs, and other walking/working surfaces.* This paragraph

requires fall protection to be used on all floors, low-pitched roofs, and other walking/working surfaces with unprotected sides or edges. By definition, a floor, roof, or other walking/working surface is unprotected along its edge if there is no wall (including parapets) or guardrail system at least 39 inches in height (an exception is made, of course, at point of access). Except during the performance of built-up roofing work and except when working near dangerous equipment, fall protection is required wherever the fall distance is six feet or more. This is the same requirement as in E § 1926.500(d)(1). The four foot requirement in E § 1926.500(d)(2) for runways is changed to six feet in the proposal for purposes of consistency.

In general, guardrail systems are the only fall protection systems allowed at unprotected sides or edges of floors, low-pitched roofs, and other walking/working surfaces. This is essentially the same requirement as E § 1926.500(d)(1) except the proposal would allow the use of body belt/harness systems or safety net systems when the supporting surface is less than 18 inches wide (see § 1926.501(b)(1)). This change is proposed because OSHA believes it often can be impractical to erect guardrail systems on such narrow platforms. The 18-inch limit is consistent with the existing rule for ramps and runways, E § 1926.500(d)(3). In addition, the proposal recognizes a number of operations and areas where a guardrail system may not be a feasible or appropriate way of providing fall protection along unprotected sides and edges. Paragraphs (b)(2) through (10) identify these areas and operations and specify which fall protection systems are appropriate for the protection of employees. All other unprotected sides and edges must be provided with the systems as required by paragraph § 1926.501(b)(1). Public comment is requested on this point in Issue Number 2.

Paragraph (b)(2) addresses the problem of fall protection near leading edges. As defined in this proposal, a leading edge is that portion of a floor (or roof, or formwork surface) under construction which is an edge from which an employee could fall until placement of the next floor sections.

Because the time lapse between placement of successive sections is often only a few minutes, guardrail systems erected along a leading edge have to be removed almost as soon as they are erected to allow placement of the next section. Therefore, OSHA believes that a requirement to have

guardrail systems often is not feasible along leading edges.

OSHA also believes that a requirement to erect safety nets often is not feasible because of insufficient room to rig a safety net and because the net would have to be constantly moved. In addition, OSHA believes that body belts and harnesses are not always appropriate means of fall protection along leading edges as they limit an employees' freedom of movement which can hinder job performance as well as impair an employee's ability to avoid a misdirected incoming piece of concrete or other structural member used on the leading edge.

In addition, the erection of some structural members requires employees to walk along a leading edge during placement of the member. A body belt or harness can unacceptably impede this effort. However, because guardrail systems, safety net systems, and body belt/harness systems can be used feasibly in some situations, paragraph (b)(2)(i) would allow their use as fall protection for employees constructing leading edges. In addition, because of the aforementioned problems with conventional systems, OSHA is proposing to allow a safety monitoring system to be used to protect leading edge workers. Safety monitoring systems, discussed in detail below in paragraph § 1926.502(h) are patterned after the systems allowed for use during built-up roofing operations, (see E § 1926.500(g)).

Paragraph (b)(2)(ii) requires guardrail systems or control zone systems to be erected along leading edges to protect workers who are not constructing leading edges, but who are on a walking/working surface which has a leading edge. This requirement applies only to the leading edge hazard. Other unprotected sides and edges of the walking/working surface must be guarded as required by the other provision of paragraph (b). No other system would be allowed because OSHA believes these two systems to be the only practical way of protecting non-leading edge workers while, at the same time, keeping these workers out of the area where leading edge work is being performed. A control zone, discussed in detail in paragraph § 1926.502(g) below, is simply a visual and physical barrier which prevents employees from inadvertently entering the area immediately adjacent to the leading edge.

Paragraph (b)(3) requires employees in hoist areas to be protected by body belt/harness systems when they are leaning through hoist area access

openings, and by either body belt/harness systems or guardrail systems at all other times. This is essentially the same requirement as E§ 1926.500(g)(5) which applies only to hoisting operations on low-pitched roofs during built-up roofing operations, except the proposal would extend the rules to all hoisting operations on floors as well as low-pitched roofs. Also, the proposal would apply to equipment hoisting areas in addition to materials handling areas.

Paragraph (b)(4) requires that all holes in floors, low-pitched roofs, and other walking/working surfaces be guarded by covers or guardrails. The existing standard contains separate specific rules for floor openings, roof openings, platform openings, hatchways, chutes, pits, etc. However, the proposed standard treats most holes as presenting the same type of hazard and does not address each individual type of hole separately. Paragraph (b)(4)(i) requires covers to be closed when holes are not in use, and paragraph (b)(4)(ii) requires guardrails to be erected around holes when covers have been removed. These are essentially the same requirements as E§.500(b)(3)(i), (b)(5), (b)(6), and (b)(8).

Paragraph (b)(5) requires employees working on formwork and reinforcing steel to be protected by a body belt/harness system, safety net system or positioning device system. Positioning devices are essentially body belts which are attached by short lanyards to the work surface, and which allow the worker to perform a job with both hands free. Because of the short length of the lanyard, approximately nine to 18 inches depending on how it is rigged, OSHA believes there is no significant fall hazard when positioning devices are used. The existing standard does not address positioning devices.

Paragraph (b)(6) requires ramps, walkways, bridges, and runways to be equipped with guardrails. This is essentially the same requirement as in E§ 1926.500(d)(2) and E§ 1926.651(w), except that the four foot limit is replaced by a six foot limit to make it conform with the other fall protection provisions, and all walkways and bridges would be covered, not just those over excavations.

Paragraph (b)(7) requires the edges of inconspicuous excavations to be provided with guardrail systems, fences, signs, or barricades to prevent employees from falling into them. In addition, walls, pits, shafts, and similar excavations shall be guarded. These are essentially the same requirements as contained in E§ 1926.651(t), which is proposed to be relocated from Subpart P to Subpart M because it addresses fall protection. However, the term "remotely

located" contained in E§ 1926.651(t) is deleted and the hazard is described in terms of the excavation's visibility. Although excavations are not generally required to be provided with guardrail systems, OSHA believes that excavations which are obscured from view, because of plant growth or other visual barrier, do require protective barriers. Public comment is requested in the Specific Issues section of this preamble as to whether or not signs are appropriate means of protection for this hazard.

Paragraph (b)(8) sets out requirements to protect employees from falling into dangerous equipment. The requirement provides that where the floor, roof, or walking/working surface is less than six feet above such hazards, employees shall be protected by guardrails or equipment guards that shield the hazard. For employees on floors, roofs, and other walking/working surfaces six feet or more above dangerous equipment, guardrail systems, body belt/harness systems, or safety net systems shall be used. "Dangerous equipment" is defined as equipment such as pickling or galvanizing tanks, degreasing units, machinery, electrical equipment and other units which are hazardous in nature because of their form or function. These requirements and the definition are based on E§ 1926.500(d)(4) and (5).

Paragraph (b)(9) addresses the fall protection requirements for employees engaged in overhand bricklaying operations and related work. These employees are involved in the construction of masonry walls and must lean over the wall to complete the joint work. Related work which is also covered by this paragraph includes mason tending and electrical work which must be incorporated into the brick wall during the bricklaying process.

While the use of guardrails, body belts, body harnesses, and safety nets is allowed during overhand bricklaying, the use of such systems often is not feasible. Guardrails pose obvious interference problems and safety nets cannot be attached to many load-bearing or other brick walls as such walls are not capable of supporting the loads imposed by a net system. Body belt/harness systems often become entangled in close quarters and in those cases where suitable anchorages can be found, lanyards and lifelines pose serious tripping hazards to the mason tenders who could themselves trip and go over the edge. Therefore, after extensive consultation with the Mason Contractors of America, the International Union of Bricklayers and Allied Craftmen, the Laborer's

International Union of North America, and the ACCSH, the use of a control zone is proposed to be allowed for the protection of employees performing overhand bricklaying and related work.

A control zone, discussed in detail in paragraph § 1926.502(g) below, is simply a visual and physical barrier which prevents non-overhand-bricklaying employees from inadvertently entering the area immediately adjacent to the fall hazard. It also designates the area where overhand bricklaying may be performed without the use of guardrails, body belt/harnesses, or safety nets as fall protection. However, paragraph (b)(9)(ii) provides that if the overhand bricklayer must reach more than 10 inches below the walking/working surface, then control zones may not be used to protect such employees. Instead, such employees must use conventional fall protection systems. This requirement is proposed because the consensus opinion of the bricklaying industry and trade (Ex. 1, December 16, 1980) is that this additional leaning presents a sufficient fall hazard to warrant requiring physical restraints for fall protection; i.e., guardrail, body belt/harness, or safety net systems, despite any feasibility problems.

The exceptions listed in paragraph (b)(9) clarify which provisions of paragraph (b) apply when bricklaying employees are engaged in work activities that are covered by more than one paragraph. For example, a worker performing overhand bricklaying work near a floor hole would have to be protected as required by paragraph (b)(4) with regard to the hole. Another example is a worker performing overhand bricklaying work above dangerous equipment. The provisions of paragraph (b)(8) would apply, and a control zone could not be used. Similar exceptions apply for hoisting areas and ramps and runways. These exceptions are made because OSHA views each of these areas to be more hazardous than the unprotected sides and edges generally encountered by overhand bricklaying workers.

Paragraph (b)(10) applies to employees performing built-up roofing work on low-pitched roofs with unprotected sides and edges 16 feet or more above lower levels. Such employees shall be protected by conventional fall protection systems (guardrail systems, body belt/harness systems, safety net systems), a combination of warning line and conventional system, a combination of warning line and safety monitoring system, or safety monitoring system alone in certain specified conditions.

This is the same requirement as E § 1926.500(g)(1) except the existing language uses the terms "ground" and "eaves" as the points between which the 16-foot height criteria is to be measured. The proposal uses the terms "unprotected sides and edges" and "lower levels" to eliminate confusion, as some roofs do not have eaves, and other roofs are more than 16 feet above the ground but less than 16 feet above the nearest lower level (penthouse roofs for example). The Note at the end of this paragraph clarifies the scope of paragraph (b)(10) by specifying that employees performing built-up roofing on low-pitched roofs with a fall distance less than 16 feet are not required to have any of the fall protection systems required for higher work. This is the intent of E § 1926.500(g) which was developed during a 1980 rulemaking (see 45 FR 75618), and this position is supported by the National Roofing Contractors Association, the National Home Builders Association, the United Union of Roofers, Waterproofers, and Allied Workers, and other groups, and has been reviewed by the ACCSH.

The other provisions of E § 1926.500(g) have been relocated to various paragraphs in this revision of Subpart M. However, they have not been changed substantively as they apply to built-up roofing. For example, the E § 1926.500(g)(5) provisions on hoisting have been moved to paragraph (b)(3) and are proposed to apply to all hoist areas, not just those on low-pitched roofs. Similarly the E § 1926.500(g)(3) provisions for warning lines are moved to § 1926.502(f). All such changes are explained in the discussion for each paragraph where the provisions have been relocated.

Paragraph (b)(10) has four exceptions which limit its application to built-up roofing operations. These are the same exceptions as those for overhand bricklaying operations discussed in paragraph (b)(9) above: hoisting areas; holes; ramps and runways; and dangerous equipment. The reasons for these exceptions are the same as those discussed for overhand bricklaying.

**Paragraph 1926.501(c) Steep roofs.** This paragraph requires employees on roofs with slopes steeper than four in 12 (i.e., four inches vertical to 12 inches horizontal) to be protected from falling when the roof has unprotected sides or edges more than six feet above lower levels. The fall protection must consist of guardrail systems, body belt/harness systems, or safety net systems. Existing Subpart M does not specifically address steep roof fall protection requirements. Consequently, the following provisions

outside Subpart M have been utilized as the basis for citations for inadequate fall protection on steep roofs: § 1926.28(a) Personal protective equipment; § 1926.104 Safety belts, lifelines, and lanyards; § 1926.105 Safety nets; § 1926.451(u)(3) Catch platforms; as well as section 5(a)(1) of the Occupational Safety and Health Act of 1970. The proposed provision explicitly sets out the required fall protection systems for steep roofs.

**Paragraph 1926.501(d) Wall Openings.** This provision consolidates, clarifies, and changes the existing requirements of E § 1926.500(c) (1) and (3). Under the proposal, wall openings, defined as openings 30 inches or more high and 18 inches or more wide, which have a bottom edge to lower level fall distance of six feet or more on the side away from the employees, and a bottom edge to walking/working surface height of less than 39 inches on the side facing the employees, must be provided with a guardrail system to protect employees. This is a change from E § 1926.500(c)(1) which requires such protection to be provided when the fall distance exceeds four feet, and when the near side height is less than 36 inches. These changes are made to make this rule compatible with the six foot rule of paragraphs § 1926.501 (b) and (c), the minimum height requirements for guardrail systems of paragraph § 1926.502(b)(1), and the definition of "unprotected sides and edges." The existing requirement in E § 1926.500(c)(2) for guardrails on extension platforms would be deleted as being redundant with the provisions for outrigger scaffolds covered in proposed Subpart L—Scaffolds.

**Paragraph 1926.501(e) Protection from falling objects.** This paragraph requires protective measures to be taken or barriers to be erected to shield employees who are exposed to the hazard of falling objects. The provision would apply only where there are employees below a walking/working surface or wall opening from which an object could fall. This is a change from existing rules E § 1926.500(b) (1), (2), (3)(ii), and (8) which require toeboards to be erected around floor, roof, and platform holes and openings regardless of whether or not employees are working below. However, the proposed rule is consistent with the intent of E § 1926.500(d)(1) which requires toeboards only where employees below are exposed to hazards from falling objects.

OSHA believes the listed alternatives for providing falling object protection are more feasible than the present requirements to use only toeboards or

screens. In addition to toeboards and screens, the proposal allows guardrails, protective canopies, signs, or barricades to be erected, or else the potential fall items must be placed away from the edge a distance sufficient to prevent them from going over the edge should they be accidentally displaced. This distance is not specified as it varies depending on the shape of the objects. Round objects such as rolls of roofing felt would require more distance than a stack of flat shingles. The distance also depends on the height of the object or pile of objects. OSHA believes these provisions to be appropriate means and ways of protecting against the hazards of falling objects. However, public comment is requested in the Specific Issues section of this preamble as to whether or not signs are appropriate means of protection for this hazard.

**§ 1926.502 Fall protection systems criteria and practice.** This section specifies the performance and practice requirements to be met when fall protection is required by § 1926.501 and other subparts in Part 1926. The following discussion highlights changes from or additions to the existing standard. Where provisions are essentially unchanged, they are, in the main, not discussed.

**Paragraph 1926.502(a) General.** This paragraph requires all fall protection to conform to the following provisions, as applicable, and to be provided and installed before employees begin any other work on or from the surface to be protected. To be fully effective, fall protection must be in place at the earliest possible time.

**Paragraph 1926.502(b) Guardrail systems.** This paragraph sets forth the requirements for all guardrail systems. Paragraph (b)(1) specifies that the top edge of guardrail systems shall be 42 inches, plus or minus three inches, above the walking/working surface. The existing requirement of E § 1926.500(f)(1) is that the guardrail system be "approximately 42 inches from upper surface of top rail to floor, platform, runway, or ramp level." The revised language deletes the term "approximately" and establishes that the height requirement applies on all installations, not just those on floors, platforms, runways, and ramps. Paragraph (b)(2) requires midrails, screens, mesh, intermediate vertical members (i.e., balusters), solid panels, or equivalent structural members to be installed between the top edge of the system and the walking/working surface when there is no wall or parapet wall at least 21 inches high. This is essentially the same requirement as

E§ 1926.500(f)(1)(vi)(c). Paragraph (b)(2)(i) specifies midrail height and is the same requirement as in E§ 1926.500(f)(1). Paragraphs (b)(2)(ii) and (iii) are new provisions that address the proper placement of screens, mesh, intermediate vertical members, and other structural members when they are used in lieu of midrails. Paragraph (b)(3) requires guardrail systems to be capable of withstanding the application of a 200 pound force applied within two inches of the top edge in an outward or downward direction. This is essentially the same requirement as E§ 1926.500(f)(1)(vi)(b), except the existing phrase "with a minimum deflection" is changed to read in paragraph (b)(4)(i) that "when the 200 pound test load is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 39 inches above the walking/working surface." Deflection is specified for the top edge because that is the point an employee is most likely to fall against and it must be high enough, at all times, to prevent the employee from flipping over the system. Paragraph (b)(5) provides similar specifications for midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members. No minimum deflection is specified as these are not the points where an employee is in danger of flipping over the protective barrier. Paragraph (b)(6) requires that guardrail systems be smooth surfaced to prevent employee injury due to lacerations or tripping caused by snagged clothing, and is based on E§ 1926.500(f)(1)(vi)(a). Paragraph (b)(7) requires that top rails and midrails not be so long as to constitute a projection hazard, and is the same requirement as E§ 1926.500(f)(1)(vi)(d).

Paragraph (b)(8) is a new requirement and prohibits the use of steel banding and plastic banding as top rails or midrails. While such banding can often withstand a 200 pound load, it can tear easily if twisted. In addition, such banding has sharp edges which can cut a hand if seized.

Paragraph (b)(9) requires all rails to be at least one-quarter inch in diameter or thickness. This is consistent with previous OSHA interpretations related to the use of wire cable as top rails and midrails. As guardrail strength is specified in paragraphs (b)(3), (4), and (5) above, the purpose of this requirement is to assure that rails made of high strength materials not be so thin that a worker grabbing a rail is injured because of the small size of the rail. This rule does not conflict with E§ 1926.750(b)(1)(iii) which requires wire

cables used as guardrails during steel erection to be at least one-half inch in diameter. The purpose of that provision is to assure that guardrails on erection or derrick floors are strong enough to withstand the impact loads which can be encountered during steel erection when the rails are struck by a load during hoisting operations.

Paragraphs (b)(10) through (15) are requirements for the use of guardrail systems. Paragraph (b)(10) sets forth the minimum length of guardrail required at hoisting areas during the performance of built-up roofing operations on low-pitched roofs. This is a combination of E§ 1926.500(g)(5)(i) and (ii).

Paragraph (b)(11) requires chains, gates, or guardrail sections to be placed across access openings when hoisting operations are not taking place. This is the same requirement as E§ 1926.500(g)(5)(i), which is a clarification of the general rule E§ 1926.500(d)(1). However, as written, the existing standard applies only to built-up roofing operations on low-pitched roofs. The proposed standard is written to apply clearly to all hoist locations.

Paragraph (b)(12) provides that when guardrails are used at holes, they be erected on all unprotected sides or edges of the hole. This is essentially the same requirement as in E§ 1926.500(b)(1).

Paragraph (b)(13) provides that guardrails around holes used for material access not have more than two sides provided with removable guardrail sections, and that the guardrails be in place or the hole covered when the hole is not in use. This is essentially the same requirement as E§ 1926.500(b)(3)(i), (b)(3)(ii), (b)(5), (b)(6), and (b)(8).

Paragraph (b)(14) provides that guardrails around holes used as points of access (such as ladderways) shall be provided with gates or be so offset that a person cannot walk directly into the hole. This is essentially the same requirement as E§ 1926.500(b)(2). Paragraph (b)(15) sets forth the requirements for guardrails used on ramps and runways and is essentially the same requirement as E§ 1926.500(d)(3).

The provisions in existing paragraphs E§ 1926.500(f)(1)(i), (ii) and (iii) provide detailed specifications for minimum sizes of guardrail system components. However, OSHA believes that the important consideration in guardrail system design and construction is that the guardrail system be capable of supporting safely the loads as specified in paragraph § 1926.500(b), and not that

a guardrail system have a particular sized component or post spacing.

Consequently, the proposal would relocate the provisions of these existing paragraphs to Appendix A, and would not make them mandatory. The relocation of these provisions does not reduce the level of safety presently achieved by the existing standard. The existing specific provisions are engineered solutions to the requirements of E§ 1926.500(f)(1)(vi) which are performance criteria essentially the same as the performance requirements being proposed. Relocating the provisions to Appendix A reduces redundant provisions and eliminates the possible misinterpretation that the specified provisions are the only acceptable ways of building guardrail systems.

*Paragraph 1926.502(c) Safety net systems.* This paragraph replaces existing section E§ 1926.105—Safety nets. The subject matter is relocated to Subpart M because of its obvious relation to the revised fall protection scope of this Subpart. As discussed below, most of the proposed requirements are substantively the same as the existing provisions.

Paragraph (c)(1) requires safety nets to be installed as close as practicable under the walking/working surface where employees need to be protected, but in no case more than 25 feet below such level. This paragraph clarifies existing paragraph E§ 1926.105(a) which implies that safety net systems are not required until the fall distance exceeds 25 feet. Proposed paragraphs E§ 1926.501 (b) and (c) clearly required fall protection when the fall distance exceeds six feet (with some limited exceptions), not 25 feet. An exception, without limit, is made for bridge construction where only one level of nets is required. This exception is presently recognized by paragraph E§ 1926.105(c)(2). However, public comment on the adequacy of this exception is requested in the Specific Issues section of this preamble.

Paragraph (c)(2) requires nets to extend outward at least 15 feet from the outermost projection of the work surface. This is a change from the existing eight foot requirement of paragraph E§ 1926.105(c)(1). The National Bureau of Standards (NBS) has conducted tests to evaluate this requirement. Their findings indicate that at least 15 feet are required to fully contain a body falling 25 feet (Ex. 14:50).

Paragraph (c)(3) requires nets to be rigged with sufficient clearance under them to prevent contact with the lower level when the net is subjected to impact

forces as specified in paragraph (c)(4). This is substantively the same requirement as in E § 1926.105(c)(1).

Paragraph (c)(4) specifies the capacity requirements for safety nets and safety net installations. The paragraph requires employers to show that nets and net installations meet the capacity requirements by conducting drop tests meeting designated parameters, or by certification by a qualified person that the net and net installation meet all specified criteria when the employer can demonstrate that drop testing is not feasible or practicable. An example of where a drop test may not be feasible or practicable is where the net is strung over a public thoroughfare and the test could endanger people below. Another example is where the test weight cannot be readily retrieved from the net once it has been dropped.

For the purposes of paragraph (c)(4), OSHA considers two or more net panels joined together to be one net. Safety net installations which do not share the same net are considered to be separate systems. In addition, each time a safety net system is erected, it is considered to be a separate installation which must be tested or certified. This is a clarification of existing paragraph E § 1926.105(b) which requires all net installations to be drop-tested. Paragraph (c)(4)(ii) sets forth the proposed criteria for performing drop tests on net installations. In most respects, these criteria are the same as the paragraph 8 requirements of ANSI A10.11-1979. However, the proposal requires the test to be conducted from the highest walking/working surface on which employees are to be protected, as opposed to the 25-foot height required by ANSI, so that the test more closely resembles the type of fall from which the worker is to be protected. OSHA believes the use of a 400 pound weight to test the system is sufficient to ensure that a proper margin of safety is obtained.

Paragraph (c)(5) is a new provision and requires safety nets to be inspected weekly for mildew, wear, damage, or other deterioration. Defective components must be removed from service. Paragraph (c)(6) is also new and requires debris and tools to be removed as soon as possible from the net, but not later than the start of the next work shift. Such obstacles pose obvious safety hazards to anyone who falls into the net. Paragraph (c)(7) specifies the maximum allowable mesh opening and is essentially the same as existing rule E § 1926.105(d), which provides for a maximum of six inches on any side of an opening. The proposal also limits the

size of the opening to a maximum of 36 square inches. This limit is proposed because mesh openings can be manufactured with more than four 6-inch sides. A limit of 36 square inches is necessary to keep the open mesh from being so large that an employee's head could go into it during a fall, and possibly breaking the employee's neck. This is the same requirement as in paragraph 5.1 of the 1979 ANSI standard for nets (Ex. 4). Paragraph (c)(8) specifies a minimum breaking strength of 5,000 pounds for border ropes used for net webbing, and is the same requirement as E § 1926.105(d). Paragraph (c)(9) requires connections between net panels to be as strong as integral components, and to be spaced not more than six inches apart. This is essentially the same requirement as E § 1926.105(f), except the six inch requirement is new and based on the 1979 ANSI requirement, paragraph 9.3. The existing E § 1926.105(d) requirement that all new nets must meet accepted performance standards of 17,500 foot-pounds minimum impact resistance, as determined and certified by the manufacturer, is proposed to be deleted. This requirement applies only to the net and not to the net installation. OSHA believes the important consideration is the safety net system as a whole, and that the provisions of proposed paragraph (c)(4) are sufficient to assure proper safety for employees. The best net can be rendered useless by an improper installation. For these same reasons, the E § 1926.105(d) requirement for a label of proof test also is proposed to be deleted. In addition, existing paragraph E § 1926.105(e) requiring forged steel safety hooks or shackles to fasten nets to supports is proposed to be deleted. The existing rule is unduly specific as there are other acceptable ways and means to fasten nets to supports, such as wire ropes.

*Paragraph 1926.502(d) Body belt/harness systems.* This paragraph replaces all of existing section E § 1926.104—Safety Belts, Lifelines, and Lanyards and would relocate coverage of bodybelt/harness systems to Subpart M as revised. This is done as part of the consolidation of fall protection requirements for construction.

Paragraph (d)(1) requires that body belt/harness systems only be used for employee protection and not as materials or equipment hoist slings, bundle ties, or for similar purposes. This is substantively the same requirement as E § 1926.104(a). Paragraph (d)(2) requires that body belt/harness systems or components subjected to impact loading, as distinguished from static load testing,

be removed from service, inspected, and not used for employee protection again until found suitable for such use. This is the same requirement as in E § 1926.104(a) except the existing provision prohibits any further use of the belt for employee protection. However, OSHA recognizes that not every impact loading adversely affects a body belt/harness system. For example, a relatively short fall of one foot may leave the belt/harness system undamaged; however, a long fall of six feet probably will destroy the belt or harness. Because OSHA believes many factors, such as the employee's weight and the type of deceleration device used, will affect a system's potential capacity for reuse as employee protection, no blanket prohibition of reuse after any impact loading is proposed. Paragraph (d)(3) requires lifelines to be protected against being cut or abraded. This is essentially the same requirement as E § 1926.104(c) except the new provision deletes the specification for seven-eighth-inch wire core manila rope. This change is proposed due to the availability of other equally satisfactory types of rope which, when they are properly protected against wear, are adequate for use as lifelines. Paragraph (d)(4) requires body belt/harness systems to be rigged to minimize free fall distance with a maximum free fall distance allowed of six feet, and is meant to clarify existing rule E § 1926.104(d). The new provision also limits the drop distance by requiring the system to be rigged such that the employee cannot contact any lower level. OSHA believes that it is not sufficient to rig the system with a six foot lanyard where, for example, the potential fall distance is only eight feet. In such a situation, the lanyard would stop the free fall at six feet but the employee would bend at the waist (if a simple belt is worn). Thus, at the end of the free fall, the employee's arms, legs, and head would continue to "fall" a distance greater than the six feet and could strike the lower level. Also to be considered when body belt/harness systems are rigged is the type of deceleration device used and the additional fall distance required for it to stop the fall effectively. Based on recommendations made by the body belt/harness manufacturing industry, paragraph (d)(5) limits this additional fall distance for the deceleration device to stop the fall to 42 inches (excluding lifeline elongation). Paragraph (d)(6) is a new provision and limits the arresting force generated by a deceleration device to 10 times the employee's weight or 1,800 pounds, whichever is lower. The

"10 times" limit is based on the provisions in paragraph 3.3.5 of the American National Standard Institute's publication ANSI A10.14-1975, "Requirements for Safety Belts, Harnesses, Lanyards, Lifelines, and Drop Lines for Construction and Industrial Use" (Ex. 5). OSHA believes this limit alone is not sufficient to protect an employee from serious harm as the arresting force generated is a function of the employee's weight. For example, a 180 pound employee would experience an 1,800 pound arresting force, while a 250 pound employee would experience a 2,500 pound arresting force. Consequently, a maximum force of 1,800 pounds is proposed to avoid excessive body stresses when a fall is arrested. For a further discussion of this limit, see Issue Number 8.

Paragraph (d)(7) is a new provision and requires body belt/harness attachment points to be behind the hip of the wearer, preferably in the middle of the back or above the head, in order to produce the least amount of strain on the body when the falls are stopped. Paragraph (d)(8) requires body belts to be at least one and five-eighths inches wide. This is essentially the same requirement as the ANSI A10.14 requirement in paragraph 3.2.1, and is intended to distribute the arresting force over a large area of a body. Paragraph (d)(9) requires hardware to be drop forged, pressed, or formed steel, or equivalent strength material. This is essentially the same requirement as E § 1926.104(e), except the Federal Specification requirement is deleted as being unnecessarily restrictive as other suitable hardware is available. Paragraph (d)(10) requires hardware to be corrosion-resistant and smooth-finished so as to not damage the attached belt or lanyard. This is essentially the same requirement contained in E § 1926.104(e). Paragraph (d)(11) would provide that only one employee may be attached to any one vertical lifeline. This is a clarification of E § 1926.104 (b), (d), and (f) which specify minimum requirements for body belt lifelines. These limits are only adequate for one employee per lifeline, and OSHA thereby does not allow more than one employee per lifeline. In addition to strength considerations, OSHA believes it is inherently unsafe for two workers performing separate tasks to use a single vertical lifeline. Movement by one employee could cause the lifeline to be pulled to one side which could, in turn, cause the other worker to lose balance. In addition,

should one employee fall, the other worker might be caused to fall also.

Paragraph (d)(12) would require body belt/harness systems to be secured to an anchorage capable of supporting twice the potential impact load of an employee's fall. This is a change from existing rule E § 1926.104(b) which requires anchorages to be capable of supporting a minimum dead weight of 5,400 pounds. This change is proposed because the existing rule is based on the rated strength of the manila rope commonly used for lifelines and lanyards at the time the rule was developed, and is not based on the actual load the anchor must support when an employee falls. The proposed rule is performance-oriented, and addresses the actual forces involved. A similar provision is set forth in Appendix D of OSHA's proposed rulemaking for powered platforms, 29 CFR 1910.66 (50 FR 2890, January 22, 1985), except that provision requires a design factor of only one for an anchorage's capacity. This proposal requires a design factor of two because of the public comments (Ex. 13) made in response to the powered platforms proposal.

Paragraphs (d) (13), (14), (15), and (16) specify minimum strength criteria for lifelines, lanyards, and other components, and require all components either to be capable of supporting a minimum fall impact load of 5,000 pounds or to have a minimum tensile strength of 5,000 pounds (except self-retracting lifelines and lanyards which have a 3,000 pound minimum limit). These requirements change the existing rules for lifelines and lanyards, E § 1926.104 (c) and (d), which specify a minimum limit of 5,400 pounds nominal breaking strength. This change is proposed because the existing rules were based on the strength of the then available manila rope used for body belt systems and not on the actual forces generated in a fall. The new requirement of 5,000 pounds fall impact load is based on a 250 pound employee experiencing a force of 10 times gravity times a safety factor of two. Paragraph (d)(16) requires hardware to be capable of supporting a minimum fall impact load of 5,000 pounds applied at the lanyard point of connection. This provision is consistent with the other proposed paragraphs and replaces existing rule E § 1926.104(f), which requires all hardware to be capable of withstanding a tensile loading of 4,000 pounds, but which does not specify where the 4,000 pound load is to be applied. The performance criteria of proposed rule (d)(12) for anchorages, and the specification

criteria of proposed rules (d) (13) through (16) for other body belt/harness components are consistent with the provisions set forth in Appendix D of OSHA's proposed rulemaking for powered platforms, and with rules being developed for other general industry (29 CFR Part 1910) application. Public comment is requested in Issue Number 22 on whether or not this approach is appropriate for the construction industry.

Paragraphs (d) (17), (18), and (19) are new provisions and regulate the use of snap hooks. These provisions are intended to reduce the danger of "roll out" by prohibiting the use of two or more snap hooks at the same point of connection. "Roll out" is the situation where snap hooks come in contact with each other, or some other object, in such a way that the hook opens and the belt or lanyard becomes disconnected.

Paragraph (d)(20) is a new provision and requires inspection of body belt/harness systems to insure that defective systems are not used.

Paragraph (d)(21) prohibits the attachment of body belt/harness systems to hoists or guardrail systems, and is the same requirement as E § 1926.500(g)(5)(iv), except the existing rule applies only to built-up roofing operations on low-pitched roofs, and does not include the guardrail restriction. The proposed rule would extend coverage to all hoist areas and guardrail systems. However, this is not a new rule as E § 1926.104(b) specifies minimum anchorage requirements for body belts. This rule is a clarification of how the existing requirement applies to two potential points of anchorage. OSHA believes that hoists and guardrail systems are not designed nor built to withstand the impact forces generated by a fall, and therefore, should be prohibited from being used as body belt/harness anchorages.

Paragraph (d)(22) specifies how body belt/harness systems are to be rigged when used at hoist areas and is the same as E § 1926.500(g)(5)(v), except the existing rule applies to only built-up roofing operations on low-pitched roofs. However, the requirement would be extended by the proposal to cover all hoist areas. The limitation on movement when wearing a body belt/harness is made because of the frequent tendency of employees to lean out over the edge at hoist areas.

#### *Paragraph 1926.502(e) Positioning device systems.*

These new provisions set the minimum performance criteria for "positioning devices," which are

systems similar to body belt systems and which can be comprised of many of the same components. The significant difference is that body belt systems are used to arrest falls, whereas positioning devices are used by employees to maintain a leaning position without using their hands while working on vertical surfaces. An example when these devices may be used is during the placement of reinforcing bars in the vertical face of a wall under construction. The employees often stand on bars already in place and must lean backward, similar to a lineman on a telephone pole, to place additional bars. The positioning device allows this to be done without the employees having to use their hands to maintain position. Paragraph (e)(1) limits the total fall distance of positioning devices to 24 inches. This distance is less than the six foot distance allowed for body belt/harness systems because the lanyards used with positioning devices usually do not stretch under fall impact loading and deceleration devices normally are not used to reduce the forces incurred during a fall. Paragraphs (e)(2) through (5) cover strength criteria and inspections. These provisions and their rationale are the same as those discussed above for body belt/harness systems.

*Paragraph 1926.502(f) Warning line systems.*

These provisions address proper warning line system construction, arrangement, set-up, maintenance, and use, and are the same requirements as E § 1926.500(g)(3) (i), (ii), and (iii). These provisions were discussed in detail in the preamble of the Notice of Final Standard Action for the Guarding of Low-Pitched-Roof-Perimeters During the Performance of Built-Up Roofing Work (45 FR 75618, November 14, 1980).

*Paragraph 1926.502(g) Control zone systems.*

These new provisions set minimum performance criteria for control zones used on leading edges and during overhand bricklaying operations. These systems are intended to serve as warning systems and as the designators and definers of areas where unique fall provisions apply. Paragraph (g)(1) requires control zones used on leading edges to be no closer than six feet to the leading edge, nor further than 25 feet away. The six foot limitation is needed to provide adequate warning to employees while their attention is diverted, that they are approaching a fall hazard. It warns workers that they are near an unprotected side or edge under construction. The 25 foot limit

requires the zone to be moved as construction of the edge progresses. Paragraph § 1926.501(b)(1) requires a guardrail system to be erected along the unprotected side edges (usually perpendicular to the leading edge) which result as the control zone is moved forward. Paragraph (g)(2) requires control zones used during overhand bricklaying operations to be not less than 10 feet nor more than 15 feet from the working edge where the overhand bricklaying operations are being performed. These limits were developed after extensive consultation with industry and union representatives and review by the ACCSH. The enclosed zone is intended to provide overhand bricklayers with an area free of interference from other employees not performing related work. Paragraph (g)(3) requires the zone lines and access path lines to be made of ropes, wires, tapes, or other equivalent materials and supported on stanchions. Paragraph (g)(3)(i) requires the system to be flagged or otherwise clearly marked. Paragraph (g)(3) (ii) and (iii) regulate the height of the control zone lines for leading edges and overhand bricklaying. Overhand bricklaying control zone height limits are higher than those for leading edge work to allow the ready passage of materials underneath the line. Paragraph (g)(3)(iv) requires a minimum line tensile strength of 200 pounds. This minimum strength is required to assure that the lines will not break if an inattentive worker walks into them. Paragraph (g)(4) requires control zones to be connected to points of access, materials handling areas, and storage areas by access paths made with control zone-type barriers.

Paragraph (g)(5) addresses those work situations where no guardrails have been erected prior to the beginning of overhand bricklaying or leading edge operations. The control zone limits the employees to a controlled area of work activity where overhand bricklaying or leading edge operations are being performed. In paragraph (g)(6), OSHA recognizes that erected guardrails can interfere with overhand bricklaying and leading edge operations, and allows guardrails to be removed to permit such work. However, guardrails may only be removed to the extent necessary to accomplish one day's amount of bricklaying or leading edge work. Once guardrails are removed the resulting unprotected edge must be guarded by a control zone. Paragraph (g)(7) allows only employees engaged in overhand bricklaying and related work to be in the control zone. This limitation is necessary because the presence of

extraneous employees in the control zone can interfere with otherwise safe work procedures used during overhand bricklaying and leading edge work.

*Paragraph 1926.502(h) Safety monitoring systems.*

The existing standard allows the use of safety monitoring systems as fall protection only on roofs and only during built-up roofing work. The proposed rule, however, allows such systems to be used also on walking/working surfaces other than roofs (see § 1926.501(b)(2)(i), leading edges). In addition, these systems are only defined in E § 1926.502(p)(7), and specific criteria are not set out in the body of the existing standard. The proposal sets forth specific criteria which apply when safety monitoring systems are used, as follows: paragraph (h)(1) requires safety monitors to be competent in recognizing fall hazards; to warn employees when they appear to be unaware of a fall hazard or are acting in an unsafe manner; to be on the same surface as the monitored employees and within visual sighting distance of them; and to be close enough to communicate orally with the employees. The monitor may have supervisory or non-supervisory responsibilities as there are no restrictions on the performance of other duties. However, the monitor must not be so busy with other responsibilities that the monitoring function is encumbered. Paragraph (h)(2) prohibits the use of mechanical equipment in areas where safety monitoring systems are being used to protect employees from falling. This is essentially the same requirement as in E § 1926.500(g)(4). Paragraph (h)(3) prohibits employees not engaged in built-up roofing work from being in an area where built-up roofing employees are working and protected by a safety monitoring system. This requirement is necessary because the presence of extraneous employees in these areas can interfere with otherwise safe work procedures used during built-up roofing work.

*Paragraph 1926.502(i) Covers.*

This paragraph, which is substantively the same as E § 1926.500(f)(5), sets the performance criteria for covers used to protect employees from falling into or through holes in floors, roofs, and other walking/working surfaces. Paragraph (i)(1) specifies the minimum strength requirements for covers used in roadways and vehicular aisles. Paragraph (i)(2) specifies the minimum strength requirements for all other covers. Whereas the existing rule, E

§ 1926.500(f)(5)(ii), requires all other covers to be capable of supporting the maximum intended load, the proposed rule specifies a minimum capacity of 250 pounds. This minimum capacity is based on what OSHA considers to be the average maximum weight of an employee and the employee's tools. Paragraph (i)(3) requires covers to be installed so as to prevent accidental displacement.

*Paragraph 1926.502(j) Protection from falling objects.*

This paragraph sets forth the performance criteria for providing protection from falling objects. Paragraph (j)(1) requires toeboards, when used, to be erected along the edge of overhead walking/working surfaces for a distance sufficient to protect employees working below. This is a change from existing rules E § 1926.500(b) (1), (2), (3)(ii), and (8) which require toeboards around floor, roof, and platform holes and openings regardless of whether or not employees are working below. However, the proposed rule is consistent with the intent of E § 1926.500(d)(1) and proposed paragraph § 1926.501(e) which require protection only where employees below are exposed to the hazard of falling objects. Paragraph (j)(2) would be a new requirement and specifies the minimum strength of toeboards. Paragraph (j)(3) specifies how toeboards are to be installed and is essentially the same as E § 1926.500(f)(3)(i). Paragraph (j)(4) provides that where tools, equipment, or materials are higher than the top of a toeboard, additional protection must be used, such as paneling or screening erected from the working level or toeboard to the top of the toprail or midrail. This requirement is substantively the same as E § 1926.500(f)(3)(ii). Paragraph (j)(5) requires that when guardrails are used to prevent objects from falling, the openings in the guardrail must be small enough to retain the potential falling objects. This is essentially the same requirement as E § 1926.500 (c)(1)(ii) and (f)(7)(ii) except the specific limitations on hole size are deleted. Paragraph (j)(6) contains housekeeping provisions for overhead bricklaying operations which are intended to prevent tripping and to prevent displacement of materials and equipment to areas below the walking/working surface. Paragraph (j)(7) sets forth provisions for materials and equipment storage during built-up roofing operations. These are essentially the same requirements as E § 1926.500(g)(5) (vi) and (vii). Public comment is specifically requested in Issue Number 5 on what provisions are

appropriate for specifying proper canopy protection.

*Section 1926.503 Training.*

The requirements of this section are in addition to the training requirements of E § 1926.21, however, the provisions may be cited only when one or more citations are issued under the other provisions of Subpart M.

Paragraph (a)(1) clarifies the types of hazards to be addressed in all training programs given to educate employees using fall protection systems. Fall protection and fall protection systems are only effective when they are properly designed, built, located, maintained, and used. This section sets forth the purpose and general outlines for the requisite training. However, this section does not specify the details of the training program. Instead, it requires employees to be instructed in the proper way to erect, use, place, and maintain fall protection systems. In this way, the section provides flexibility for the employer in designing the training program.

Paragraph (a)(2) specifies that training and retraining be provided for each employee as necessary. OSHA requests comments on whether or not a more specific requirement would be appropriate in Issue Number 3.

*Appendix A to Subpart M—Guardrail Systems.* As explained in the discussion for the proposed section governing guardrail systems, this appendix is a non-mandatory set of guidelines provided to assist employers in complying with the requirements of paragraphs § 1926.502(b) (3), (4) and (5). If a contractor uses these guidelines to select guardrail system components, and builds the system as indicated by the guidelines, then OSHA will assume that the components meet the requirements of paragraphs § 1926.502(b) (3), (4) and (5). Components for which no specific guidelines are given in the appendix (e.g., joints, base connections) must be designed and constructed in accordance with the capacity requirements of paragraphs § 1926.520(b) (3), (4) and (5). The appendix neither creates additional obligations nor eliminates obligations otherwise contained in the standard. It is intended to provide useful, explanatory material and information to employers and employees who wish to use it to aid in understanding and complying with the standard.

*Appendix B to Subpart M—Roof Widths.* Appendix B is provided to serve as a guide to assist employers in complying with the requirements of paragraph § 1926.502(f). The record compiled for the promulgation of existing subsection E § 1926.500(g),

which requires the guarding of low-pitched roofs during the performance of built-up roofing work, demonstrates that there was confusion as to which dimension of a building should be considered to be the width of a roof. Appendix B explains that in all cases the building must be viewed in plan view (i.e., viewed from above, looking down). The width of the roof is then the narrower of the two primary dimensions which define the roof area. Although the Appendix does not show all possible roof configurations, it does give some common arrangements. This appendix neither creates additional obligations nor eliminates obligations otherwise contained in the final standard. It is intended to provide useful, explanatory material and information to employers and employees to aid in understanding and complying with the standard.

*Appendix C to Subpart M—Test Procedures for Evaluating Body Belt/Harness Systems and Positioning Device Systems.* Appendix C is provided to serve as a guide to assist employers in complying with the requirements of paragraphs § 1926.502 (d) and (e). Body belt/harness and positioning device systems which have been tested in accordance with the criteria of this appendix will be deemed by OSHA to meet the performance criteria of paragraphs § 1926.502(d) (5), (6), (15), and § 1926.502(e) (3) and (4). This appendix neither creates additional obligations nor eliminates obligations otherwise contained in the standard. It is intended to provide useful, explanatory material and information to employers and employees to aid in understanding and complying with the standard.

*Specific issues.* The public is specifically requested to comment on the following issues:

1. The preamble identifies the provisions in the standard which are new or which are changed from the provisions of the existing standard. OSHA believes that many employers are already following many of these revised provisions. However, OSHA will evaluate, on the basis of all the evidence submitted to the public record, the likely effectiveness of the proposed revised and new provisions and will include in the final rule only those revised and new requirements for which a significant reduction in the risk of incurring injuries or fatalities would be supported by the final record. Hence, the following issues are raised:

- a. Public comment is requested on the current level of practice which meets the requirements of the proposed changes;

b. Public comment is requested on the practicality and feasibility of the proposed changes, and whether implementation of the proposed changes will reduce the occurrence or severity of accidents;

c. Public comment is requested on the amount of any costs or savings which have not been identified by OSHA (see Section IV of this preamble—Preliminary Regulatory Impact Assessment and Regulatory Flexibility Analysis) which might result from the proposed changes;

d. Public comment is requested on the availability and content of accident reports which indicate that the proposal does not properly address fall hazards.

2. Are there areas or operations, in addition to those already identified in proposed § 1926.501, which have unique fall protection requirements not addressed by the proposed standards? Examples of such areas and operations might include carpenters erecting roof trusses during house construction; steel erectors working on other than tiered buildings (which are covered by Subpart R—Steel Erection) such as single story buildings, high bay buildings, warehouses, prefabricated buildings, communications towers, storage tanks, bridges, antennas, industrial plants, and similar structures; or connectors erecting wood, precast concrete, and structural members made of other materials. Comments on this point should describe such areas and operations in detail, and should discuss the fall protection system which should be used.

In addition, public comment is requested on whether or not OSHA has been overly restrictive in its fall protection provisions by requiring the use of only certain types of protective systems in specified areas or for specified operations. For example, paragraph § 1926.501(b)(4) requires the use of covers or guardrail systems to protect against employees falling into holes located in the walking/working surface. Are there other systems, such as warning lines or attendants (such as those allowed in § 1910.23), which would provide adequate fall protection at such locations? If so, what other systems are appropriate, under what circumstances, and at what locations?

3. In some of the existing provisions and in some of the proposed provisions, OSHA uses specific numerical limits to define and clarify the duties set forth. For example, E § 1926.502(a) and proposed paragraph § 1926.500(b) define the term hole by giving a physical measurement. This then determines when certain safety systems must be used to protect against fall hazards. These and other limits are based on

existing laws and consensus standards, and are used in lieu of more performance-oriented language such as "covers shall be used on all holes which are large enough to constitute a fall hazard," or language which requires a numerical limit but then allows other configurations which give "equivalent" protection. OSHA believes that although such performance-oriented language would be less restrictive on employers, and thus give them more options when abating a hazard, it does not always tell the employer exactly what is required (i.e., how to do something "right"). On the other hand, requiring specific numerical limits in the rule and allowing the employer to use other limits which the employer can show will provide "equivalent" protection may respond to both these concerns. OSHA believes that the use of specific limits in certain provisions (such as those listed above) provides the required notice to employers as to how they can comply with a provision compared to how OSHA intends to enforce the provision. OSHA believes that such notice serves to inform employers and employees about the proper way to do things; promotes consistency in hazard abatement at all worksites; and also minimizes legal disputes over the intent of a requirement. On the other hand, specification language can increase costs without increasing safety, discourage technical innovation, prevent the use of safe alternatives, and fail to anticipate the varying needs and situations in the numerous workplaces covered by the standard.

Public comment is requested on whether or not OSHA's use of specification language is appropriate, or if it should be moved to a non-mandatory appendix which could provide guidance to employers. If not, how should the provisions be written to provide the desired flexibility and the required fair notice? If the continued use of such limits is appropriate, are the proposed limits sufficient to abate the hazards? Comments should include appropriate cost and injury data.

4. Existing provision E § 1926.500(d)(1) and proposed provision § 1926.501(b) require fall protection systems to be erected or used at all unprotected sides and edges of floors (open-sided floors) and similar walking-working surfaces. As worded, the existing provision has been interpreted to mean that a guardrail is required around an open-sided floor even when employees on the floor are working near the middle of the floor and are removed from the perimeter fall hazard. The proposed language could also be interpreted to require the same degree of protection.

The existing provision has also been interpreted to mean that a citation for lack of fall protection should be issued only when employees are working near the unprotected side or edge and are thus exposed to the fall hazard. Public comment is requested on whether or not a distance (or some other method of defining exposure) should be specified whereby fall protection would be required only when an employee is within that distance of a fall hazard. Proponents for such a limit should state what that distance should be, and why. Proponents for the existing language, as modified in the proposal, should state why a limit would not be appropriate. All comments should include appropriate cost and injury data.

5. Proposed § 1926.503(a)(2) would require training and retraining as necessary for all employees exposed to fall hazards. Public comment is requested on whether a more specific requirement or a less specific requirement such as that found in § 1926.21, would be appropriate. OSHA intends to include in the final rule only those training requirements for which a significant reduction in the risk of incurring injuries or fatalities would be supported in the final record.

Public comment is also requested on what training programs are currently available, who is providing them, and their cost. To the extent possible, examples of both adequate and inadequate training programs should be provided, with examples of how inadequate training may have contributed to unsafe conditions.

Companies, unions, trade associations, and other organizations conducting training programs also are encouraged to submit data concerning the safety records of employees who have undergone training. For example, have companies which have instituted training programs experienced a decrease in accidents compared to the situation existing before training was started?

Information concerning the costs of training and how such costs may be offset by more efficient and/or safe operations is also requested. Although OSHA believes safety training is necessary and beneficial, comments have been received that raise the following concerns:

What level of specificity should OSHA require in a training program? What are the necessary elements of a training program? Can the more general training requirements contained in § 1926.21 be effective in providing employees with adequate training or are

the more specific requirements in this proposal necessary?

Do employers or employees believe that training is too costly for the benefits it yields? If OSHA should not require training at all, is there a basis for predicting if training efforts will decrease, increase, or stay at present levels? Would employers, employees, or other interested parties support the omission of the training requirement proposed for this subpart? Do data, eyewitness, and anecdotal evidence exist which may constitute support for OSHA's not requiring training?

Comments are also requested on whether or not training should be required to be provided in specific sessions devoted to an overall view of safety issues likely to be encountered, or are on-the-job sessions, limited to isolated safety concerns as they are encountered, sufficient to insure safety?

In addition, OSHA requests comments on whether compliance with these proposed training requirements could be practicably accomplished without keeping records. Do these proposed training requirements, as written, impose an implicit recordkeeping burden on employers? Data on the cost and time necessary for keeping training records, if any, are requested.

6. Should OSHA promulgate rules requiring the inspection of work surfaces to determine their structural integrity prior to employees being required to work on such surfaces? Currently, there are no specific requirements that address this concern. The purpose of these inspections would be to insure that work surfaces have the requisite strength to not collapse under the weight of employees, tools, and materials. That such a rule may be needed is evidenced by a study conducted by OSHA (Ex. 3:77). That study shows that of eight fatalities of employees falling through ceilings, four of the accidents were caused by the work surface not being capable of supporting the employee's weight. The study also shows that of 55 fatalities resulting from falls from roof levels, approximately eight were caused by the employees working on surfaces with insufficient structural strength to support their weight. Comments should address the types of inspection criteria necessary, the methods to be used, and the qualifications of the inspectors.

7. Should OSHA promulgate a rule requiring covers to be painted or otherwise clearly marked to indicate their function as a cover? Covers are often only pieces of plywood and the purpose of this rule would be to help employees distinguish between a covered hole and debris.

8. Paragraph § 1926.501(e) allows protective canopies to be erected as an alternative form of falling object protection. Comments are requested on what criteria should be specified in paragraph § 1926.502(j) to assure proper protection for employees.

9. Proposed paragraph § 1926.252(c)(5) requires safety nets to be inspected weekly, and proposed paragraphs § 1926.252 (d)(20) and (e)(5) require body belt/harnesses and positioning devices to be inspected prior to each use. Public comment is requested on this degree of frequency of inspection.

10. The term "mechanical equipment" is used to describe the type of equipment addressed in the provisions of proposed paragraph § 1926.502(f) which addresses built-up roofing work. Wheelbarrows and mopcars are exempted from the provisions of § 1926.502(f) because, as discussed in the 1980 rulemaking package E § 1926.502(g) Guarding of low-pitched roof perimeters during the performance of built-up roofing work (45 FR 222),

[t]hese two pieces of equipment are excluded from the definition because their use does not require employees to move backward. In addition, they are light in weight and, therefore, develop little momentum. Wheelbarrows and mopcars do not present the same degree of risk to roofing employees as do machines such as felt layers and gravelbuggies. Mopcars and wheelbarrows do not require employees to divide their attention between the equipment they are using and the roof edge, as they would have to do with heavier, more awkward machinery. In addition, excluding mopcars and wheelbarrows from outside the warning line would require employees to transport hot tar, gravel, and related materials by hand. This could result in increased burn injuries and employee fatigue, both of which may be very hazardous when working near the roof edge.

Public comment is requested as to whether or not mopcars and wheelbarrows should remain the only exempted pieces of equipment.

11. Paragraph § 1926.501(b)(10) would provide that fall protection not be required during the performance of built-up roofing operations on low-pitched roofs when the fall distance is less than 16 feet. As discussed in the preamble, this exemption was reviewed by various labor and industry groups during a 1980 rulemaking. OSHA believes the 16-foot exemption is not necessary and that a six-foot limit is both more appropriate and more consistent with other Subpart M provisions. Although this would appear to increase the requirements, OSHA believes this provision can be changed without significant impact because another part of the existing and proposed rule states that guardrails,

body belts, safety nets, and warning lines are not required on roofs 50 feet or less in width. OSHA believes the 50-foot limit has the same exemptive effect as the 16-foot limit, except safety monitoring would be required in more situations. Public comment on this change should include appropriate cost and injury data.

12. Paragraphs § 1926.501 (b)(7) and (e) set forth alternative systems and procedures for preventing employees from falling into obscured excavations, and from walking into areas where falling object projection is required. Public comment is requested on whether or not signs should be listed as an alternative method of providing the required protection. Whereas the other forms of protection involve either removing the hazard or physically restraining the employee, signs are passive and can be missed if an employee's attention is on other matters. However, signs can provide valuable information about the nature of the hazard present, and can be less costly to erect. Comments should include appropriate cost and injury data.

13. Proposed § 1926.501(b)(1) requires the use of body belts, safety nets, or guardrail systems on surfaces more than six feet above lower levels. During bridge construction, safety nets are commonly selected to provide the required fall protection. Proposed § 1926.502(c)(1) requires only one level of net when bridges are being built, the same as existing rule E § 1926.105(c)(2). Public comment is requested on whether or not a single net provides adequate fall protection for bridge projects where employees working on the upper levels of the bridge could fall and strike bridge structural members before they fall into the safety net. Stated another way, should body belt systems be required on bridge construction, in addition to nets, where the employees do not have an unobstructed fall to the net?

14. OSHA is proposing to require body belt/harness systems to be rigged such that they minimize the amount of free fall with a maximum free fall distance allowed of six feet (1.8 m). In addition, the maximum allowable force produced is limited to 10 g<sub>a</sub> or 1,800 pounds (8 kN), whichever is lower. These provisions are consistent with ANSI A10.14-1975 and a National Bureau of Standards report on fall safety equipment (Ex. 8). However, there are several authorities which would further restrict or even prevent the use of body belt/harnesses in fall arrest systems. For example, the draft ISO international standard for personal fall arrest systems sets limits on the arresting force permitted when

using a body belt to five kN (1,125 pounds) (Ex. 9). This draft ISO standard also prohibits the use of a system which would suspend a worker more than 50 degrees from a vertical position after a fall is arrested. OSHA believes that the ISO requirements would effectively eliminate the use of body belts in fall arrest systems.

Another study conducted by Dr. Maurice Amphoux, et al. (Ex. 10), recommends that body belts not be used as fall arrest systems because of injury potential. A British Standard (Ex. 11) limits the use of body belts to a maximum free fall of two feet (.6 m) and a maximum force of five  $g_n$ . In addition, a recent review by the U.S. Air Force Aerospace Medical Research Laboratory of pertinent literature on personal fall arrest systems (Ex. 12) concludes that a body belt is not safe for prolonged suspension (especially motionless suspension).

In addition, comments and testimony received on the OSHA Subpart F powered platform proposal (29 CFR 1910.66 [50 FR 2890], January 22, 1985) relative to personal fall arrest systems stated that injuries were sustained by employees who used a body belt during fall arrest, and recommendations to limit the use of, or ban use of, the body belt for personal fall arrest systems were made.

In view of this additional information, OSHA requests that interested parties provide information, comment and supportive data as to the use of a body belt in a fall arrest system. Specifically:

- a. Should OSHA restrict the use of body belts as personal fall arrest systems? If so, should limitations be placed on body belt usage?
- b. Is the maximum six foot (1.8 m) free fall limitation acceptable for body belts? Should a two foot (.6 m) or other limitation be adopted for body belts instead?
- c. Is the proposed 10  $g_n$  or 1,800 pound (8 kN) force limitation for body belts acceptable? Is it acceptable for body harnesses?
- d. Is there additional information available which indicates that prolonged suspension in a body belt may be a problem?
- e. Is injury data available which shows that employees have been injured by a body belt during fall arrest, or during suspension following fall arrest?
- f. If body belts are not allowed in personal fall arrest systems, or if limitations are placed on their use so that body harnesses are more widely used, what are the costs and benefits of using body harnesses, rather than body belts? What is the availability and

worker acceptance of body harnesses in industry?

15. OSHA requests comments concerning the best method for stating the maximum force limitation allowed for body belt/harness systems. By using the force generated by a 10  $g_n$  deceleration alone as the limitation, the permitted force value will vary with the weight of the worker. For instance, based on a 10  $g_n$  limitation, a 275 pound (125 kg) worker would be permitted by the standard to experience 2,750 pounds (12.3 kN) of force during an arrest. In view of the human tolerance information discussed above, OSHA believes that this amount of force is unacceptable, and has proposed 1,800 pounds (8 kN) as the maximum force limitation. OSHA requests comments on the following points:

- a. Does the proposal provide a reasonable means of taking both deceleration and force into account? Should the limitation be expressed solely as either maximum arrest force (pounds force), or the force generated by a maximum arrest deceleration (i.e.,  $g_n$ )?
- b. Is the 1,800 pound (8 kN) limitation acceptable? If not, what should the limit be? What information is available to support a different limitation for arresting force?
- c. The suggested test procedures in Appendix C include a 130 pound (59 kg) test weight for lanyard systems. The National Bureau of Standards' report (Ex. 8) identified the use of lighter test weights as being more important in meeting the 10  $g_n$  limitation for lanyards than for heavier test weights, because lighter test weights do not cause lanyards to be as elastic as do heavier weights. However, if the standard were to impose *only* a force limitation on fall arrest systems, a 130 pound (59 kg) test weight would not reflect the forces to which employees over 130 pounds (59 kg) would be exposed during a fall. OSHA requests data, views, and arguments on whether the 130 pound (59 kg) test weight for lanyard systems is appropriate, or whether the 220 pound (100 kg) test weight, which is used for all other systems, should also be used for lanyards during the force test?
- d. Comments and testimony received on the OSHA Subpart F powered platform proposal relative to personal fall arrest systems stated that the test procedures proposed were confusing and overly complicated, and simplified test procedures were recommended. Are the test procedures in this proposal too complex? If the strength of all of the components of a personal fall arrest system are specified, would a single qualification test to measure arresting force be sufficient? What should be the

parameters of a single test (such as free fall distance, test weight, arresting force limit)?

16. OSHA has received a number of conflicting views on body belt/harness system snap-hook design. During meetings with the Fall Protection Group of ISEA, several members of that group suggested that single action snap-hooks should no longer be permitted and favored a requirement which would mandate the use of locking snap-hooks. Other members expressed the viewpoint that properly designed and properly applied single action snap-hooks are acceptable, and that their continued use should be allowed. Comments and testimony received on OSHA's Subpart F powered platform proposal relative to personal fall arrest systems recommended the use of locking snap-hooks. OSHA requests suggestions, information, and supporting rationale as to the type of snap-hook which should be permitted. In addition, OSHA requests information pertaining to:

- a. The number of snap-hooks (single action versus locking) in use;
  - b. The increased cost of using locking snap-hooks rather than single action snap-hooks; and
  - c. Incidents in which either single action or locking snap-hooks have failed in use.
17. Paragraphs §§ 1926.502 (d)(20) and (e)(5) require body belt/harness systems and positioning device systems to be inspected prior to each use for mildew, wear, damage, and other deterioration. Public comment is requested on whether or not more definitive inspection criteria is needed for determining when such systems are no longer suitable for use. If so, what criteria should be specified?

18. Public comment is requested on the following issues relating to the testing procedures set forth in Appendix C: What tests are manufacturers of body belt/harness and positioning device systems using to evaluate their equipment? Are these tests similar to the ones included in this proposal? Are products labeled as meeting a test standard, or the tests proposed by OSHA? What information is currently available to employers regarding testing of existing personal fall protection equipment? Can the proposed test methods be simplified? If so, how? Should qualification testing of personal fall protection systems be mandatory?

19. Both this proposal and Appendix D of OSHA's proposed rulemaking for powered platforms require body belt/harness systems to have certain specified strength characteristics. Non-mandatory test procedures are given (see Appendix C of this subpart) to

assist employers in complying with the strength requirements. Body belt/harness systems tested by manufacturers in conformance with the guidelines given in the Appendix C would be considered as acceptable systems and components that meet the requirements of § 1926.502(d). Other test procedures which evaluate system strengths would also be acceptable. A commenter on Appendix D has criticized the test methods section as inadequate and suggested that testing be done in accordance with test methods of approved consensus standards for components and subassemblies of systems rather than for a complete system as OSHA has proposed. In addition, this commenter believes that tests should be mandatory. OSHA requests comments and suggestions regarding the need for clarified, mandatory test methods for components and subassemblies of body belt/harness systems and positioning device systems. OSHA would be particularly interested in any information about the existence, or development, of national consensus standards for the design and testing of such systems, components, and subassemblies.

20. A commenter on OSHA's Subpart F powered platform proposal has criticized the mandatory provisions of the powered platform proposal for failing to spell out how equipment components should be connected, and the circumstances in which the components and subsystems of a body belt/harness system would be interchangeable. It has, for example, been suggested that OSHA require body belt/harness equipment manufacturers to label their products indicating when employers could use them interchangeably and with what other equipment. It was also suggested that the components and subsystems, and any combinations thereof that an employer might employ, be tested to meet static and dynamic strength requirements. OSHA solicits comments and suggestions regarding the range of components and subsystems reasonably available to system designers and users, the availability of any nationally or internationally recognized test methods for components and subsystems, and information regarding components and subsystems which are not interchangeable. In addition, OSHA requests public comment on whether or not interchangeability would be useful or feasible.

21. OSHA uses the term "deceleration device" in both this proposal and in OSHA's Subpart F powered platform proposal to describe certain fall arrest

components. A Subpart F commenter has suggested that "deceleration device" is not properly descriptive and that OSHA should instead, utilize the terms "fall arrester," "energy absorber" and "self-retracting lifeline/lanyard" to cover the separate components and subsystems involved. OSHA solicits comments as to how adequately the term "deceleration device" encompasses the components and subsystems which are used to control deceleration. OSHA also requests comments regarding the suggestion that "deceleration device" be replaced by more specific terms.

22. Proposed paragraph § 1926.502(d)(10) would require all body belt/harness hardware to "have a corrosion-resistant finish," the same as required by Appendix D of OSHA's Subpart F powered platform standard. A Subpart F commenter has suggested that OSHA quantify the corrosion resistance requirements, referring to the ASTM Salt Spray Testing Standard. OSHA solicits comments and suggestions regarding the utility and feasibility of quantification. Suggestions should be accompanied by supporting information.

23. Paragraph § 1926.502(d)(13) and OSHA's Subpart F powered platform proposal would require certain specified self-retracting lifelines and lanyards to have a minimum tensile strength of 3,000 pounds. A Subpart F commenter has suggested that self-retracting lifelines and lanyards be required to meet this minimum load requirement with the lanyard or lifeline fully extended. It was also suggested that OSHA specify the maximum arresting force to be transmitted by those devices taking into account the kind of "body belt or harness" used. OSHA solicits comments and suggestions regarding the proposed requirements for self-retracting lifelines and lanyards. Please submit supporting information.

24. A commenter on OSHA's Subpart F powered platform proposal has suggested that OSHA require proof-testing of dee-rings and snap-hooks at 100 percent of rated load to ensure that defective equipment is not used. OSHA solicits comments regarding the need for such testing and suggestions for possible implementation. OSHA would be particularly interested in information concerning what testing is currently performed or feasible, the cost of testing, and any accidents involving defects in such equipment.

25. A commenter on OSHA's Subpart F powered platform proposal has suggested that OSHA require that horizontal lifeline subsystems (trolley lines) be designed by "qualified persons" and that the requirements for

horizontal lifelines (see paragraph § 1926.502(d)(14) of this proposal) be revised to include more detailed guidance. OSHA solicits comments and suggestions regarding these recommendations. Please submit supporting information.

26. Paragraph § 1926.502(d)(12) would require body belt/harness anchorages to be capable of supporting at least twice the potential impact load of an employee's fall, and paragraphs §§ 1926.502(d) (13) through (16) would require all other components to be capable of supporting at least 5,000 pounds. These provisions are consistent with the provisions set forth in Appendix D of OSHA's Subpart F powered platform proposal, and with rules being developed for other general industry applications. Public comment is requested on the applicability of this approach for the construction industry.

27. Subpart V—Power Transmission and Distribution provides additional criteria for personal climbing equipment, lineman's body belts, safety straps and lanyards. Paragraph § 1926.951(b)(4) requires lanyards and lifelines to meet the requirements of E § 1926.104, Safety belts, lifelines, and lanyards. Public comment is requested on the economic impact, and any other impact, that would result if the reference to paragraph § 1926.104 is changed to § 1926.502(d)—body belt systems, and § 1926.502(e)—positioning device systems.

#### IV. Preliminary Regulatory Impact Assessment and Regulatory Flexibility Analysis

*Introduction and summary.* In accordance with Executive Order No. 12291 (46 FR 13193, February 17, 1981) OSHA has analyzed the economic impact of this proposed standard. Under the criteria established in E.O. 12291, OSHA has determined that the promulgation of this proposed standard would be a "minor" action because the expected costs of full compliance with the proposed standard would be approximately \$68.469 million less in the first year and \$27.482 million less each year thereafter than full compliance with the existing standard.

*Affected industries and population at risk.* The entire construction industry would be affected by the proposed changes to the existing Subpart M. In terms of the two-digit Standard Industrial Classification (SIC) codes, OSHA has determined that the proposal could potentially affect all firms in SICs 15, Building Construction—General Contractors and Operative Builders; SIC 16, Construction Other Than Building

Construction—General Contractors; and SIC 17, Construction—Special Trades Contractors. The majority of business firms classified under SIC 17 are subcontractors to the general contractors classified under SICs 15 and 16. Rather than classifying these sectors by their two-digit SIC designations, OSHA has used the type of finished construction product as the basis for classifying the construction industry into the following four general sectors:

1. Single-family housing,
2. Residential, except single family housing (e.g., hotels, apartments),
3. Nonresidential (e.g., commercial and institutional buildings), and,
4. Heavy Construction (e.g., bridges, utilities). In 1977, there were approximately 456,000 individual contractors affected by Subpart M.

OSHA has estimated that all of the approximately 4 million construction workers are exposed to fall hazards. Although it is quite likely that employee exposure to fall hazards would differ among the various construction trades, no data were available to quantify these differences.

*Significance of risk.* OSHA has estimated that the percentage of all occupational injuries that are injuries in construction due to falls from elevations is between 0.35 percent and 0.69 percent, with a mean of 0.52 percent. Applying this range to the 5,956,000 occupational injuries reported in the 1979 Occupational Injuries and Illnesses report (Ex. 6), OSHA estimated that the number of injuries in construction due to falls from elevations was between 20,845 and 41,095 with a mean of 30,970. Of these injuries, between 9,465 and 18,655, were lost workday injuries and between 11,380 and 22,440 with a mean of 16,910 were non-lost workday injuries. OSHA also estimated that the number of lost workdays in construction due to falls from elevations would be between 170,370 and 335,790, with a mean of 253,080.

In addition, OSHA determined that there would be between 45 and 60 yearly fatalities in construction associated with falls from elevations.

Consequently, OSHA concluded that the construction injuries and fatalities due to falls from elevations are significant and merit effort to reduce their numbers.

*Feasibility, benefits, and cost.* OSHA has determined that the proposed revision of Subpart M would be technologically feasible because it would permit the use of readily available technology and equipment.

Benefits from the proposal would accrue to all construction workers. OSHA has also determined that full

compliance with the proposed standard would prevent from 37 to 50 fatalities, from 17,300 to 34,110 injuries (from 7,855 to 15,485 of which would have been lost workday injuries and 9,445 to 18,625 would have been non-lost workday injuries), and from 141,390 to 278,730 lost workdays. OSHA has also determined that full compliance with the existing standard would prevent from 33 to 44 fatalities, from 14,385 to 28,355 injuries, (from 6,530 to 12,870 of which would have been lost workday injuries and from 7,855 to 15,485 would have been non-lost workday injuries), and from 117,540 to 231,660 lost workdays. Under conditions of full compliance, therefore, the proposed standard would prevent from 4 to 6 more fatalities, from 2,915 to 5,755 more injuries (from 1,325 to 2,615 lost workday injuries and from 1,590 to 3,140 non-lost workday injuries), and from 23,850 to 47,070 fewer lost workdays than would be prevented by the existing Subpart M.

OSHA does not endorse any particular estimate for the value of an employee's life. For illustrative purposes, however, OSHA used two methods to estimate the monetizable value of the benefits that would be a result of the implementation of the proposed standard. The first method, known as the "human capital" approach, directly estimates the foregone earnings and medical costs associated with an occupational injury or death. Lost production and medical costs to society, however, are the minimum benefits resulting from the prevention of an occupational injury. The other method of estimating benefits is based on the willingness-to-pay concept. Willingness-to-pay is the theoretical amount that the beneficiaries of a program would be willing to pay in order to obtain the benefits of the program or, in an occupational safety context, what a group of workers would pay to reduce the probability of a death or injury. Willingness-to-pay is therefore a more accurate indicator of the true social benefits of preventing injuries to workers.

Using the "human capital" approach, OSHA determined that the annual monetizable benefits would be from \$13.956 million to \$26.598 million greater from full compliance with the proposed standard than from full compliance with the existing standard. In present value terms (using a 10 percent discount rate), these potential increases in monetizable benefits would be between \$100.204 million and \$190.974 million over a 10-year period.

On the basis of the willingness-to-pay concept, OSHA determined that the annual monetizable benefits would be

from \$54.258 million to \$100.455 million (using \$3.5 million as the value for a prevented fatality) greater from full compliance with the proposed standard than from full compliance with the existing standard. In present value terms, these potential increases in monetizable benefits would be between \$390 million and \$721 million over a 10-year period.

Using the baseline of existing industry practice, OSHA estimated the costs of full compliance with the proposed standard to be \$76.310 million in the first year and the annualized costs to be \$65.777 million. The present value of these costs over the next 10 years would be \$508.445 million. OSHA also estimated that the costs of full compliance with the existing standard to be \$144.979 million in the first year and the annualized costs to be \$93.259 million. The present value of these costs over the next 10 years would be \$711.566 million.

Thus, OSHA determined that the net first-year cost savings in going from full compliance with the existing Subpart M to the revised Subpart M would be \$68.679 million. The annual cost savings thereafter would be \$27.472 million. The present value of these annual cost savings over the next 10 years would be \$203.115 million.

Consequently, OSHA concluded that full compliance with the proposed Subpart M would provide a safer environment at a lesser cost to the industry than would full compliance with the existing Subpart M and that the proposal is therefore the more cost-effective method of assuring the safety of employees working near fall hazards.

*Cost of compliance for all other proposed OSHA construction safety standards.* OSHA considered the economic impact on the construction industry of this proposed revision and of the seven other construction standards that have been recently revised and promulgated or that are in the proposed or final rulemaking stage. Using the baseline of current industry practice, OSHA estimated that the annual total costs of these standards would be about \$3.4 million for Underground Construction (Subpart S), \$5.8 million for Crane- or Derrick-Suspended Personnel Platforms (Subpart N), \$28.7 million for Concrete and Masonry Construction (Subpart Q), \$12.5 million for Ladders and Stairways (Subpart X), \$48.0 million for Electrical Construction (Subpart K), and \$7.6 million for Scaffolds (Subpart L), and no costs for Trenching (Subpart P). Using the baseline of full compliance with the existing standards, OSHA estimated that the incremental costs of

these standards would be about \$2.7 million for Underground Construction, \$2.2 million for Crane or Derrick Suspended Personnel Platforms, \$17.5 million for Concrete and Masonry Construction, and \$8.4 million for Ladders and Stairways. In addition, a cost savings of \$30.6 million for Electrical Construction, \$7.6 million for Scaffolds, and between \$11.7 million and \$42.8 million for Trenching is expected for those revisions. Thus, the net impact of these proposed actions in addition to this action would be increased annualized costs of \$171.8 million when using a baseline of current industry practice and an annual cost savings between \$46.6 million and \$77.7 million when using a baseline of full compliance with the existing standards.

**Regulatory flexibility certification.** Pursuant to the Regulatory Flexibility Act (Pub. L. 96-353, 94 Stat. 1164 (5 U.S.C. 60 et seq.)), the Assistant Secretary has made a preliminary assessment of the impact of the proposed standard and has concluded that it would not have a significant impact upon a substantial number of small entities. OSHA invites public comment concerning this preliminary conclusion.

The important criterion that governs a Regulatory Flexibility Analysis is whether the proposed standard would impose significant costs upon small entities. "Significance" is determined by the effect upon profits, market share, and the entity's financial viability. In particular, the proposed standard's effect upon small entities relative to its effect upon large entities needs to be specifically evaluated. That is, OSHA must determine whether the proposal would have a relatively greater negative effect upon small entities than upon large entities, thereby putting small entities at a competitive disadvantage, and if so, whether there are ways to minimize any differentially adverse effects without increasing worker risk.

If the costs of compliance for small firms are relatively minor and are proportional to the size of the firm, then there is no significant differential effect. In those cases involving large absolute costs, small firms may have greater difficulty in obtaining financing, and in those cases involving economies of scale in compliance, the burden on small firms will be greater than the burden on large firms. The proposed changes to Subpart M, however, require minimal capital expenditures and provide net cost savings to employers in comparison with the costs of compliance under the current standard. Furthermore, as its provisions are more performance

oriented than specification oriented, small entities can use the most cost-effective methods of employee protection best suited to their particular work situations. In addition, these costs would be a minimal component of the overall costs of the structures being built. As a result, small entities would not be put at a competitive disadvantage due to these compliance costs.

Thus, OSHA has concluded that this proposed standard would not have a significant adverse impact upon a substantial number of small entities.

The assessment is available for inspection and copying at the OSHA Technical Data Center, Room N-3670, 200 Constitution Avenue, NW., Washington, DC 20210. OSHA invites comments concerning the conclusions reached in the Regulatory Assessment.

#### V. Environmental Assessment

**Finding of no significant impact.** This proposed rule and its major alternatives have been reviewed in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.), the Guidelines of the Council on Environmental Quality (CEQ) (40 CFR Part 1500), and OSHA's DOL NEPA Procedures (29 CFR Part 11). As a result of this review, the Assistant Secretary for OSHA has determined that the proposed rule will have no significant environmental impact.

The proposed revisions to 29 CFR 1926.500-1926.502, Subpart M—Fall Protection, focus on the reduction of accidents or injuries by means of work practices and procedures, proper use and handling of equipment, and training, as well as on changes in language, definition, and format of the standard. These revisions do not impact on air, water, or soil quality, plant or animal life, the use of land, or other aspects of the environment. As such, these revisions are therefore categorized as excluded actions according to Subpart B, section 11.10, of the DOL NEPA regulations.

#### VI. References

1. Advisory Committee on Construction Safety and Health, *Transcripts of meetings held on November 29-30, 1977; January 10, 1978; February 14, 1978; December 5, 1978; December 16, 1978; June 29-30, 1982.*
2. U.S. Department of Labor, Occupational Safety and Health Administration, *Preliminary Regulatory Impact and Regulatory Flexibility Assessment of Subpart M—Fall Protection*, Office of Regulatory Analysis, Washington, DC, March 1984.

3. U.S. Department of Labor, Occupational Safety and Health Administration, *Occupational Fatalities Related to Roofs, Ceilings, and Floors as Found in Reports of OSHA Fatality/Catastrophe Investigations*, November 1979.

4. American National Standard ANSI A10.11-1979, *American National Standard for Safety Nets Used During Construction, Repair, and Demolition Operations*, American National Standards Institute, New York.

5. American National Standard, ANSI A10.14-1975, *Requirements for Safety Belts, Harnesses, Lanyards, Lifelines, and Droplines for Construction and Industrial Use*, American National Standards Institute, New York.

6. U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Injuries and Illnesses in 1979: Summary*, Washington, DC, April 1981.

7. Andrew C. Sulowski, "Selecting Fall Arresting Systems," *National Safety News*, October 1979.

8. National Bureau of Standards (NBS), NBSIR 76-1146 *A Study of Personal Fall-Safety Equipment*, Washington, DC: NBS, June 1977.

9. International Standards Organization (ISO), Secretariat Association Francaise de Normalisation (AFNOR), *Personal Fall Arresting Systems and Components*, (ISO/TC 94/SC4 N50E), New York, NY: ANSI, 1983.

10. Noel, Georges; Amphoux, M., et al. *Safety Equipment in Construction and Public Works Transportation*, (No. 362) Technical Institute for Construction and Public Works. Montreuil, France: 1978.

11. British Standards Institution (BSI), *Specification for Industrial Safety Belts, Harnesses and Safety Lanyards*, (BS 1397), London, England: BSI, 1979.

12. Hearon, Bernard F. and Brinkley, James W., *Fall Arrest and Post-Fall Suspension: Literature Review and Directions for Further Research*, (AFAMRL-TR-84-021), Air Force Aerospace Medical Research Laboratory, Wright-Patterson AFB, Dayton, OH: 1984.

13. Written comments on OSHA's Proposed Rule on Powered Platforms for Exterior Building Maintenance (50 FR 2890, January 22, 1985), Docket No. S-700A.

14. Yancey, Carino and Sansalone, *Perimeter Safety Net Projection Requirements*, Center for Building Technology, National Bureau of Standards, Washington, DC, May 1986 (NBSIR 85-3271).

#### VII. Recordkeeping

This proposal contains no recordkeeping requirements. However,

public comment is requested in the Specific Issues section of this preamble on whether the proposed training requirements impose an implicit recordkeeping requirement on employers.

### VIII. Public Participation

Interested persons are invited to submit written data, views, and arguments with respect to this proposal. The comments must be postmarked by February 23, 1987, and submitted in quadruplicate to the Docket Officer, Docket No. S-206, U.S. Department of Labor, Occupational Safety and Health Administration, Room N-3670, 200 Constitution Avenue, NW., Washington, DC 20210.

The data, views, and arguments that are submitted will be available for public inspection and copying at the above address. All timely submissions received will be made a part of the record of this proceeding.

Additionally, under section 6(b)(3) of the OSH Act (29 U.S.C. 657), section 107 of the Construction Safety Act (41 U.S.C. 333), and 29 CFR 1911.11, interested parties may file objections to the proposal and request an informal hearing. The objections and hearing requests should be submitted in quadruplicate to the Docket Officer at the address above and must comply with the following conditions:

1. The objections must include the name and address of the objector;
2. The objections must be postmarked by February 23, 1987;
3. The objections must specify with particularity the provisions of the proposed rule to which each objection is taken and must state the grounds therefore;
4. Each objection must be separately stated and numbered; and
5. The objections must be accompanied by a detailed summary of the evidence proposed to be adduced at the requested hearing.

### IX. State Plan Standards

The 25 States and territories with their own OSHA-approved occupational safety and health plans must adopt a comparable standard within six months of the publication date of the final rule. These States and territories are: Alaska, Arizona, California, Connecticut (for State and local government employees only), Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, New York (for State and local government employees only), Nevada, New Mexico, North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, Wyoming. Until such time

as a comparable standard is promulgated, Federal OSHA will provide interim enforcement assistance, as appropriate, in these States and territories.

### X. List of Index Terms

#### List of Subjects in 29 CFR Part 1926

Construction industry, Construction safety, Excavations, Hoisting safety, Occupational safety and health, Protective equipment, Safety, Tools.

#### Authority:

This document was prepared under the direction of John A. Pendergrass, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210.

Accordingly, pursuant to sections 4, 6(b) and 8(g) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657), section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333), Secretary of Labor's Order No. 9-83 (48 FR 35736), and 29 CFR Part 1911, it is proposed to amend 29 CFR Part 1926 as set forth below.

Signed at Washington, DC this 17th day of November 1986.

John A. Pendergrass,  
Assistant Secretary of Labor.

### PART 1926—[AMENDED]

#### Subpart E—[Amended]

1. The authority citation for Subpart E of Part 1926 would continue to read as follows:

**Authority:** Sec. 107, Contract Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333); Secs. 4, 6, 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), or 9-83 (48 FR 35736), as applicable.

#### §§ 1926.104, 1926.105 and 1926.107 [Amended]

2. Sections 1926.104, 1926.105, and paragraphs (b), (c), and (f) of § 1926.107 would be removed and reserved.

#### Subpart H—[Amended]

3. The authority citation for Subpart H of Part 1926 would be revised to read as follows:

**Authority:** Sec. 107, Contract Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333); Secs. 4, 6, 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), or 9-83 (48 FR 35736), as applicable. Section 1926.250 also issued under 29 CFR Part 1911.

4. Paragraph (b)(2) of § 1926.250 would be revised to read as follows:

#### § 1926.250 General requirements for storage.

\* \* \* \* \*

(b) \* \* \*

(2) Employees required to work on stored material in silos, hoppers, tanks, and similar storage areas shall be equipped with lifelines and safety belts meeting the requirements of Subpart M of this part.

\* \* \* \* \*

#### Subpart P—[Amended]

5. The authority citation for Subpart P of Part 1926 would continue to read as follows:

**Authority:** Sec. 107, Contract Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333); Secs. 4, 6, 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), or 9-83 (48 FR 35736), as applicable. Section 1926.651 also issued under 29 CFR Part 1911.

6. Paragraph (t) of § 1926.651 would be removed and reserved, and paragraph (w) of § 1926.651 would be revised to read as follows:

#### § 1926.651 Specific excavation requirements.

\* \* \* \* \*

(t) [Reserved]

\* \* \* \* \*

- (w) Where employees or equipment are required or permitted to cross over excavations, walkways or bridges shall be provided.

\* \* \* \* \*

#### Subpart Q—[Amended]

7. The authority citation for Subpart Q of Part 1926 would continue to read as follows:

**Authority:** Sec. 107, Contract Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333); Secs. 4, 6, 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), or 9-83 (48 FR 35736), as applicable.

#### § 1926.700 [Amended]

8. Paragraph (b)(1) of § 1926.700 would be removed and reserved.

#### Subpart V—[Amended]

9. The authority citation for Subpart V of Part 1926 would be revised to read as follows:

**Authority:** Sec. 107, Contract Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333); Secs. 4, 6, 8,

Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), or 9-83 (48 FR 35736), as applicable. Section 1926.951 also issued under 29 CFR Part 1911.

10. Paragraph (b)(4)(i) of § 1926.951 would be revised to read as follows:

**§ 1926.951 Tools and protective equipment.**

\* \* \* \* \*

(b) \* \* \*

(4)(i) Lifelines and lanyards shall comply with the provisions of § 1926.502.

\* \* \* \* \*

11. Subpart M of Part 1926 would be revised to read as follows:

**Subpart M—Fall Protection**

§ 1926.500 Scope, application, and definitions applicable to this subpart.

§ 1926.501 Requirements to have fall protection.

§ 1926.502 Fall protection systems criteria and practices.

§ 1926.503 Training requirements.

Appendix A to Subpart M—Guardrail Systems

Appendix B to Subpart M—Roof Widths

Appendix C to Subpart M—Test Procedures for Evaluating Belt/Harness Systems and Positioning Device Systems

**Subpart M—Fall Protection**

**Authority:** Sec. 107, Contract Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333); Secs. 4, 6, 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 9-83 (48 FR 35736); and 29 CFR Part 1911.

**§ 1926.500 Scope, application and definitions applicable to this subpart.**

(a) *Scope and application.* (1) This subpart sets forth requirements to have fall protection for employees in construction, alteration, repair (including painting and decorating), and demolition workplaces covered under 29 CFR Part 1926. However, the provisions of this subpart do not apply when employees are only inspecting, investigating, or assessing workplace conditions.

(2) Section 1926.501 sets forth those workplaces, conditions, operations, and circumstances for which fall protection shall be provided except as follows:

(i) Requirements relating to fall protection for employees working on scaffolds are provided in 29 CFR 1926.451–1926.460 (Subpart L).

(ii) Requirements relating to fall protection for employees working on cranes, derricks, hoists, elevators, and conveyors are provided in 29 CFR 1926.550–1926.556 (Subpart N).

(iii) Requirements relating to fall protection for employees on pile driving equipment are provided in 29 CFR 1926.603 (Subpart O).

(iv) Requirements relating to fall protection for connectors performing steel erection and requirements for fall protection for workers on derrick and erection floors during steel erection, are provided in 29 CFR 1926.750–1926.752 (Subpart R).

(v) Requirements relating to fall protection for employees engaged in tunneling operations are provided in 29 CFR 1926.800–1926.804 (Subpart S).

(vi) Requirements relating to fall protection for employees engaged in power transmission and distribution are provided in 29 CFR 1926.950–1926.960 (Subpart V).

(vii) Requirements relating to fall protection for employees working on stairways and ladders are provided in 29 CFR 1926.1050–1926.1060 (Subpart X).

(3) Section 1926.502 sets forth the requirements for the installation, construction, and use of fall protection required by § 1926.501 and by other subparts of Part 1926, except as follows:

(i) Performance requirements for guardrail systems used on scaffolds and performance requirements for falling object protection used on scaffolds are provided in 29 CFR 1926.451–1926.460 (Subpart L).

(ii) Performance requirements for stairways, stairrail systems, and handrails are provided in 29 CFR 1926.1050–1926.1060 (Subpart X).

(iii) Specific requirements for safety railings used on derrick and erection floor during steel erection are provided in 29 CFR 1926.750 (Subpart R).

(iv) Additional performance requirements for personal climbing equipment, lineman's body belts, safety straps, and lanyards are provided in 29 CFR 1926.950–1926.960 (Subpart V).

(4) Section 1926.503 sets forth requirements for training in the installation and use of fall protection.

(b) *Definitions.* "Body belt (safety belt)" means a strap with means both for securing about the waist and for attaching to a lanyard, lifeline, or deceleration device.

"Body belt/harness system (personal fall arrest system)" means a combination of body belt or body harness, and lanyard, deceleration device, lifeline, and point of anchorage.

"Body harness" means a design of straps which is secured about the employee in a manner to distribute the arresting forces over at least the thighs, shoulders, and pelvis, with provisions for attaching a lanyard, lifeline, or deceleration device.

"Built-up roofing" means a weatherproofing cover, applied over roof decks, consisting of a liquid-applied system, a single-ply system, or a multiple-ply system. Liquid-applied systems generally consist of silicone rubber, plastics, or similar material applied by spray or roller equipment. Single-ply systems generally consist of a single layer of synthetic rubber, plastic, or similar material, and often, but not always, a layer of adhesive. Multiple-ply systems generally consist of layers of felt and bitumen. Any of the systems may be covered with a layer of mineral aggregate.

"Built-up roofing work" means the hoisting, storage, application, and removal of built-up roofing materials and equipment, including related insulation, sheet metal, and vapor barrier work, but not including the construction of the roof deck.

"Control zone" means an area designated and clearly marked in which overhand bricklaying, overhand bricklaying related work, and leading edge work may take place without the use of guardrail, body belt, or safety net systems to protect the employees in the area.

"Dangerous equipment" means equipment such as pickling or galvanizing tanks, degreasing units, machinery, electrical equipment, and other units which, as a result of form or function, may be hazardous to employees who fall onto or into such equipment.

"Deceleration device" means any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, and automatic self-retracting lifeline, which serves to dissipate more energy during a fall arrest than does a standard line or strap webbing lanyard.

"Deceleration distance" means the additional vertical distance a falling employee travels, excluding lifeline elongation, before stopping, from the point at which the deceleration device begins to operate. It is measured as the distance between the location of an employee's body belt or body harness attachment point just prior to activation of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop, excluding lifeline elongation between those two points.

"Equivalent" means alternative designs, materials, or methods which the employer can demonstrate will provide an equal or greater degree of safety for employees than the method or item specified in the standard.

"Failure" means load refusal, breakage, or separation of component

parts. Load refusal is the point where the ultimate strength is exceeded.

"Force factor" means the ratio of the arresting force on a rigid metal object to the arresting force on a human body having the same weight as the object; both falling under identical conditions.

"Free fall distance" means the vertical distance an employee falls before the body belt/harness system begins to arrest the fall. It is measured as the distance between the locations of an employee's body belt or harness attachment points before and after the fall, excluding lanyard and lifeline elongation and deceleration distance.

"Guardrail system" means a vertical barrier erected to prevent employees from falling to lower levels.

"Hole" means any hole or other opening, more than two inches (5.1 cm) in its least dimension, in a floor, roof, or other walking/working surface.

"Lanyard" means a flexible line or strap webbing which is used to secure a body belt or body harness to a lifeline or directly to a point of anchorage.

"Leading edge" means the edge of a floor, roof, or formwork which changes location as additional floor, roof, or formwork sections are placed, formed, or constructed. Leading edges not actively under construction are considered to be "unprotected sides and edges."

"Lifeline (drop lines, trolley lines)" means a line provided for direct attachment to a worker's body belt, body harness, lanyard, or deceleration device. Such lifeline may be horizontal or vertical in application.

"Lower levels" means those areas to which an employee can fall. Such areas include ground levels, floors, ramps, runways, excavations, pits, tanks, material, water, equipment, and similar surfaces.

"Low-pitched roof" means a roof having a slope less than or equal to four in 12.

"Mechanical equipment" means all motor or human propelled wheeled equipment used for built-up roofing work, except wheelbarrows and mopcars.

"Opening" means any opening 30 inches (76 cm) or more high and 18 inches (46 cm) or more wide, in a wall or partition, through which employees can fall to a lower level.

"Overhand bricklaying and related work" means the process of laying bricks and masonry units such that the surface of the wall to be jointed is on the opposite side of the wall from the mason, requiring the mason to lean over the wall to complete the work. Related work includes mason tending and electrical installation incorporated into

the brick wall during the overhand bricklaying process.

"Positioning device system" means a body belt or body harness system rigged to allow an employee to be supported on an elevated vertical surface, such as a wall, and work with both hands free while leaning backwards.

"Roof" means the exterior surface on the top of a building. This does not include floors or formwork which, because a building has not been completed, temporarily become the top surface of a building.

"Safety-monitoring system" means a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.

"Steep roof" means a roof having a slope greater than four in 12.

"Toeboard" means a low protective barrier to prevent the fall of materials and equipment to lower levels.

"Unprotected sides and edges" means any side or edge (except at entrances to points of access) of a floor, roof, ramp, or runway where there is no wall or guardrail system at least 39 inches (1.0 m) high.

"Walking/working surface" means any surface, including formwork and concrete reinforcing steel but not including ladders, vehicles, or trailers, on which employees must be in order to perform their job duties.

"Warning line system" means a barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, and which designates an area in which built-up roofing work may take place without the use of guardrail, body belt, or safety net systems to protect employees in the area.

"Work area" means that portion of a walking/working surface where job duties are being performed.

#### **§ 1926.501 Requirements to have fall protection.**

(a) *General.* This paragraph sets forth the type of fall protection system required for specific areas and operations. All fall protection required by this section shall conform to the criteria set forth in § 1926.502 of this subpart.

(b) *Floors, low-pitched roofs, and other walking/working surfaces.* Employees on floors, low-pitched roofs, and other walking/working surfaces shall be protected from fall hazards as follows:

(1) *Unprotected sides and edges.* Except as provided in paragraph (b)(2) through (b)(10) below, employees on floors, low-pitched roofs, and other walking/working surfaces with unprotected sides and edges six feet (1.8

m) or more above lower levels, shall be protected as follows:

(i) By the use of guardrail systems when the floor, roof, or other walking/working surface is 18 inches (.5 m) or more in width;

(ii) By the use of guardrail systems, body belt/harness systems, or safety net systems when the floor, roof, or other walking/working surface is less than 18 inches (.5 m) in width.

(2) *Leading edges.* (i) Employees constructing leading edges six feet (1.8 m) or more above lower levels shall be protected by guardrail systems, body belt/harness systems, safety net systems, or safety monitoring systems;

(ii) Employees on floors, low-pitched roofs, and other walking surfaces where leading edges are under construction six feet (1.8 m) or more above lower levels, but who are not constructing the leading edge, shall be protected by guardrail systems or control zone systems along the leading edge.

(3) *Hoist areas.* (i) Employees in hoist areas six feet (1.8 m) or more above lower levels shall be protected by guardrail systems or body belt/harness systems.

(ii) *Exception:* During hoisting operations, employees leaning through the access opening or out over the edge shall be protected by the use of body belt/harness systems.

(4) *Holes.* Employees on floors, low-pitched roofs, and other walking/working surfaces with holes more than six feet (1.8 m) above lower levels shall be protected by covers or guardrail systems.

(i) When covers are used for protection, they shall be closed when the hole is not in use.

(ii) When the cover is open, employees shall be protected by guardrail systems.

(5) *Formwork and reinforcing steel.* Employees on the face of formwork or reinforcing steel six feet (1.8 m) or more above lower levels shall be protected by body belt/harness systems, safety net systems, or positioning device systems.

(6) *Ramps, walkways, bridges, and runways.* Employees on ramps, walkways, bridges, and runways six feet (1.8 m) or more above lower levels shall be protected by guardrail systems.

(7) *Excavations.* (i) Employees at the edges of excavations six feet (1.8 m) or more in depth shall be protected by guardrail systems, fences, signs, or barricades, when the excavations are not readily seen because of plant growth or other visual barrier;

(ii) Employees at the edge of wells, pits, shafts, and similar excavations six feet (1.8 m) or more in depth shall be

protected by guardrail systems, fences, barricades, or covers.

(8) *Dangerous equipment.* (i) Employees less than six feet (1.8 m) above dangerous equipment shall be protected by guardrail systems or equipment guards.

(ii) Employees six feet (1.8 m) or more above dangerous equipment shall be protected by guardrail systems, body belt/harness systems, or safety net systems.

(9) *Overhand bricklaying and related work.* (i) Except as provided in paragraph (b)(9)(ii) of this section and paragraphs (b) (3), (4), (6), and (8) of this section, employees performing overhand bricklaying and related work six feet (1.8 m) or more above lower levels shall be protected by guardrail systems, body belt/harness systems, safety net systems, or control zone systems.

(ii) Employees reaching more than 10 inches (25 cm) below the level of the walking/working surface they are working on, shall be protected by a guardrail system, body belt/harness system, or safety net system.

(10) *Built-up roofing operations on low-pitched roofs.* Except as provided in paragraphs (b) (3), (4), (6), and (8) of this section, employees performing built-up roofing operations on low-pitched roofs with unprotected sides and edges 16 feet (4.9 m) or more above lower levels shall be protected by guardrail systems, body belt/harness systems, safety net systems, safety monitoring systems, or a combination of warning line system and guardrail, body belt/harness, safety net, or safety monitoring system, or, on roofs 50 feet (15.25 m) or less in width (see Appendix B), by the use of a safety monitoring system.

**Note.**—Except as provided in paragraphs (b) (3), (4), (6), and (8) of this section, fall protection is not required for employees performing built-up roofing operations on low-pitched roofs with unprotected sides and edges less than 16 feet (4.9 m) above lower levels.

(c) *Steep roofs.* Employees on steep roofs with unprotected sides and edges or holes six feet (1.8 m) or more above lower levels shall be protected from fall hazards by guardrail systems, body belt/harness systems, safety net systems, or covers.

(d) *Wall openings.* Employees working on, at, or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is more than six feet (1.8 m) above lower levels and the inside bottom edge of the wall opening is less than 39 inches (1.0 m) above the walking/working surface, shall be protected from falling through or into the

wall opening by the use of a guardrail system.

(e) *Protection from falling objects.* In addition to wearing hardhats, employees shall be protected from falling objects by toeboards, screens, or guardrail systems erected to prevent objects from falling from higher levels, or they shall be protected by a canopy structure erected to deflect falling objects, or the area to which objects could fall shall be marked with signs or barricaded and employees prohibited from entering the area, or the potential fall objects shall be placed away from the edge a distance sufficient to prevent them from going over the edge should they be accidentally displaced.

#### § 1926.502 Fall protection systems criteria and practices.

(a) *General.* (1) Fall protection systems required by this part shall comply with the applicable provisions of this section.

(2) All fall protection shall be provided, installed, and used before employees begin any other work on or from the surface or area where fall protection is required.

(b) *Guardrail systems.* Guardrail systems and their use shall comply with the following provisions:

(1) Top edge height of top rails, or equivalent guardrail system members, shall be 42 inches (1.1 m) plus or minus three inches (8 cm) above the walking/working level.

(2) Midrails, screens, mesh, intermediate vertical members, or equivalent intermediate structural members, shall be installed between the top edge of the guardrail system and the walking/working surface when there is no wall or parapet wall at least 21 inches (53 cm) high.

(i) Midrails, when used, shall be installed at a height midway between the top edge of the guardrail system and the walking/working level.

(ii) Screens and mesh, when used, shall extend from the top rail to the walking/working level and along the entire opening between top rail supports.

(iii) Intermediate members (such as balusters), when used between posts, shall be not more than 19 inches (48 cm) apart.

(iv) Other structural members shall be installed such that there are no openings in the guardrail system that are more than 19 inches (.5 m) wide.

(3) Guardrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds (890 N) applied within two inches (5.1 cm) of the top edge, in any outward or downward direction, at any point along the top edge.

**Note.**—Guardrail system components selected and constructed in accordance with Appendix A of this Subpart will be deemed to meet this requirement.

(4) When the 200 pound (890 N) test load specified in paragraph (b)(3) of this section is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 39 inches (1.0 m) above the walking/working level.

**Note.**—Guardrail system components selected and constructed in accordance with Appendix A of this Subpart will be deemed to meet this requirement.

(5) Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent intermediate structural members shall be capable of withstanding, without failure, a force of at least 150 pounds (668 N) applied in any downward or outward direction at any point along the midrail or other member.

**Note.**—Guardrail system components selected and constructed in accordance with Appendix A of this Subpart will be deemed to meet this requirement.

(6) Guardrail systems shall be so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing which could cause an employee to fall.

(7) The ends of all top rails and midrails shall not overhang the terminal posts except where such overhang does not constitute a projection hazard.

(8) Steel banding and plastic banding shall not be used as top rails or midrails.

(9) Top rails and midrails shall be at least one-quarter inch (0.6 cm) nominal diameter or thickness.

(10) When guardrail systems are used at hoisting areas during the performance of built-up roofing operations on low-pitched roofs, a minimum of four feet (1.2 m) of guardrail system shall be erected on each side of the access point through which materials are hoisted. When guardrail systems are used at pipe outlets, a minimum of four feet (1.2 m) of guardrail system shall be erected on each side of the pipe.

(11) When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section shall be placed across the access opening between guardrail sections when hoisting operations are not taking place.

(12) When guardrail systems are used at holes, they shall be erected on all unprotected sides or edges of the hole.

(13) When guardrail systems are used around holes used for the passage of materials, the hole shall have not more than two sides provided with removable guardrail sections to allow the passage

of materials. When the hole is not in use, it shall be closed over with a cover, or a guardrail system shall be provided along all unprotected sides or edges.

(14) When guardrail systems are used around holes which are used as points of access (such as ladderways), they shall be provided with a gate or be so offset that a person cannot walk directly into the hole.

(15) Guardrail systems on ramps and runways shall be erected along each unprotected side or edge; however, when operating conditions preclude installation of a guardrail system along both sides, the guardrail system may be omitted along one side provided a ramp or runway at least 18 inches (.5 m) wide is used.

(c) *Safety net systems.* Safety net systems and their use shall comply with the following provisions:

(1) Safety nets shall be installed as close as practicable under the walking/working surface on which employees are working, but in no case more than 25 feet (7.7 m) below such level. *Exception:* The 25-foot (7.7 m) limitation does not apply to nets used on bridge construction where safety nets are used for fall protection. In such cases, only one level of nets is required.

(2) Safety nets shall extend outward at least 15 feet (4.6 m) from the outermost projection of the work surface.

(3) Safety nets shall be installed with sufficient clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to the drop test specified in paragraph (c)(4) of this section.

(4) Safety nets and their installations shall be capable of absorbing an impact force equal to that produced by the drop test specified in paragraph (c)(4)(i) of this section.

(i) Safety nets and safety net installations shall be drop-tested at the jobsite before being used as a fall protection system. The drop-test shall consist of a 400 pound (180 kg) bag of sand  $30 \pm 2$  inches ( $76 \pm 5$  cm) in diameter dropped into the net from the highest walking/working surface on which employees are to be protected.

(ii) *Exception:* When the employer can demonstrate that a drop-test is not feasible or practicable, the net and net installation shall be certified by a qualified person to be in compliance with the provisions of paragraphs (c)(3) and (c)(4)(i) of this section.

(5) Safety nets shall be inspected weekly for mildew, wear, damage, and other deterioration, and defective components shall be removed from service.

(6) Materials, scrap pieces, and tools which have fallen into the safety net shall be removed as soon as possible from the net and at least before the next work shift.

(7) The maximum size of each safety net mesh opening shall not exceed 36 square inches ( $230 \text{ cm}^2$ ) nor be longer than six inches (15 cm) on any side measured center-to-center of mesh ropes or webbing. All mesh crossings shall be secured to prevent enlargement of the mesh opening.

(8) Each safety net (or section of it) shall have a border rope for webbing with a minimum breaking strength of 5,000 pounds (22.2 kN).

(9) Connections between safety net panels shall be as strong as integral net components and shall be spaced not more than six inches (15 cm) apart.

(d) *Body belt/harness systems.* Body belt/harness systems and their use shall comply with the provisions set forth below. Body belt/harness systems which comply with the provisions of Appendix C will be deemed to meet the requirements of paragraphs (d) (5), (6), and (16) of this section, provided that when a rigid test weight is used to evaluate the criteria in Appendix C, a force factor of 1.4 is used.

(1) Body belt/harness systems and components shall be used only for employee fall protection.

(2) Body belt/harness systems or components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection unless inspected and determined by a competent person to be undamaged and suitable for reuse.

(3) Lifelines shall be protected against being cut or abraded.

(4) Body belt/harness systems shall be rigged to minimize free fall distance with a maximum free fall distance allowed of six feet (1.8 m), and such that the employee will not contact any lower level.

(5) Body belt/harness systems shall decelerate and bring the employee to a complete stop within 42 inches (1.1 m), excluding lifeline elongation, after any free fall distance.

(6) Body belt/harness systems, when stopping or preventing a fall, shall not produce an arresting force on an employee of more than 10 times the employee's weight (10 gn) or 1,800 pounds (8 kN), whichever is lower.

(7) Body belts shall be worn with the lanyard or deceleration device attachment point positioned at one of the following locations: on the belt anywhere between the sides of the body on the back portion of the belt when body belts are worn; and above the

waist in the back, or above the wearer's head, when body harnesses are worn.

(8) Body belts shall be at least one and five-eighths ( $1\frac{5}{8}$ ) inches (4.1 cm) wide.

(9) Hardware shall be drop forged, pressed or formed steel, or made of materials equivalent in strength.

(10) Hardware shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to the attached belt or lanyard.

(11) When vertical lifelines (droplines) are used, not more than one employee shall be attached to any one lifeline.

(12) Body belt/harness systems shall be secured to anchorages capable of supporting at least twice the potential impact load of an employee's fall.

(13) Vertical lifelines (droplines) shall have a minimum tensile strength of 5,000 pounds (22.2 kN), except that self-retracting lifelines and lanyards which automatically limit free fall distance to two feet (.61 m) or less shall have a minimum tensile strength of 3,000 pounds (13.3 kN).

(14) Horizontal lifelines (trolley lines) shall have a tensile strength capable of supporting a fall impact load of at least 5,000 pounds (22.2 kN) per employee using the lifeline, applied anywhere along the lifeline.

(15) Lanyards shall have a minimum tensile strength of 5,000 pounds (22.2 kN).

(16) All components of body belt/harness systems whose strength is not otherwise specified in paragraph (d) of this section shall be capable of supporting a minimum fall impact load of 5,000 pounds (22.2 kN) applied at the lanyard point of connection.

(17) Snap-hooks shall not be connected to loops made in webbing-type lanyards.

(18) Snap-hooks shall not be connected to each other.

(19) Not more than one snap hook shall be connected to any one dee-ring.

(20) Body belt/harness systems shall be inspected prior to each use for mildew, wear, damage, and other deterioration, and defective components shall be removed from service if their function or strength have been adversely affected.

(21) When body belt/harness systems are used at hoist areas, they shall not be attached to hoists or guardrail systems.

(22) When body belt/harness systems are used at hoist areas, they shall be rigged to allow the movement of employees only as far as the edge of the walking/working surface.

(e) *Positioning device systems.* Positioning device systems and their use

shall conform to the following provisions:

(1) Positioning devices shall be rigged such that an employee cannot free fall more than 24 inches (61 cm).

(2) All hardware shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to the attached belt or connecting assembly.

(3) Positioning devices shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall.

(4) Connecting assemblies shall have a minimum tensile strength of 5,000 pounds (22.2 kN).

(5) Positioning device systems shall be inspected prior to each use for mildew, wear, damage, and other deterioration, and defective components shall be removed from service if their function or strength has been adversely affected.

(f) *Warning line systems.* Warning line systems and their use shall comply with the following provisions:

(1) The warning line shall be erected around all sides of the work area.

(i) When mechanical equipment is not being used, the warning line shall be erected not less than six feet (1.8 m) from the roof edge.

(ii) When mechanical equipment is being used, the warning line shall be erected not less than six feet (1.8 m) from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet (3.1 m) from the roof edge which is perpendicular to the direction of mechanical equipment operation.

(iii) Points of access, materials handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path formed by two warning lines.

(iv) When the path to a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, shall be placed across the path at the point where the path intersects the warning line erected around the work area, or the path shall be offset such that a person cannot walk directly into the work area.

(2) Warning lines shall consist of ropes, wires, or chains, and supporting stanchions erected as follows:

(i) The rope, wire, or chain shall be flagged at not more than six foot (1.8 m) intervals with high-visibility material;

(ii) The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches (.9 m) from the walking/working surface and its highest point is no more than 39 inches (1.0 m) from the walking/working surface;

(iii) After being erected, with the rope, wire, or chain attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds (71 N) applied horizontally against the stanchion, 30 inches (.8 m) above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;

(iv) The rope, wire, or chain shall have a minimum tensile strength of 500 pounds (2.27 kg), and after being attached to the stanchions, shall be capable of supporting, without breaking, the loads applied to the stanchions as prescribed in paragraph (f)(2)(iii) of this section; and

(v) The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.

(3) Employees not performing built-up roofing work shall not be allowed in the area between a roof edge and a warning line.

(4) Mechanical equipment shall be used or stored only in areas where employees are protected by a warning line system, guardrail system, or body belt system.

(g) *Control zone systems.* Control zone systems and their use shall conform to the following provisions:

(1) For leading edges on floors, low-pitched roofs, and other walking/working surfaces, the control zone shall be defined by a line erected not less than six feet (1.8 m) nor more than 25 feet (7.7 m) from the leading edge. The line shall extend along the entire length of the leading edge and shall be approximately parallel to the leading edge. The line shall be connected on each side to a guardrail system or wall.

(2) For overhand bricklaying operations, the control zone shall be defined by a line erected not less than 10 feet (3.1 m) nor more than 15 feet (4.5 m) from the working edge. The line shall extend for a distance sufficient for the control zone to enclose all employees performing overhand bricklaying and related work at the working edge and shall be approximately parallel to the working edge. Additional lines shall be erected at each end to form an enclosed area.

(3) Control zone and access path lines shall consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions as follows:

(i) Each line shall be flagged or otherwise clearly marked at not more than six foot (1.8 m) intervals with high-visibility material.

(ii) For leading edge work, each line shall be rigged and supported in such a

way that its lowest point (including sag) is not less than 39 inches (1 m) from the walking/working surface and its highest point is not more than 45 inches (1.3 m) from the walking/working surface.

(iii) For overhand bricklaying operations, each line shall be rigged and supported in such a way that its lowest point (including sag) is not less than 40 inches (1.3 m) from the walking/working surface and its highest point is not more than 50 inches (1.3 m) from the walking/working surface.

(iv) Each line shall have a minimum tensile strength of 200 pounds (91 kg).

(4) On floors and roofs where guardrail systems are not in place prior to the beginning of overhand bricklaying operations, control zones shall be connected to points of access and material handling areas and storage areas by an access path formed by two lines similar in construction to those used to delineate the control zone.

(5) On floors and roofs where guardrail systems are not in place, employees performing overhand bricklaying and related work, or who are performing leading edge work, shall not be allowed outside of the control zone unless protected by a body belt system or safety net system.

(6) On floors and roofs where guardrail systems are in place, the guardrail systems may be removed and a control zone system erected only to the extent necessary to accomplish one day's amount of overhand bricklaying or leading edge work.

(7) Employees not performing overhand bricklaying, related work, or leading edge work, shall not be allowed in the control zone.

(h) *Safety monitoring systems.* Safety monitoring systems and their use shall comply with the following provisions:

(1) Persons monitoring the safety of other employees:

(i) Shall be competent in recognizing fall hazards;

(ii) Shall warn employees when it appears that the employees are unaware of a fall hazard or are acting in an unsafe manner;

(iii) Shall be on the same walking/working surface as, and within visual sighting distance of, the employees being monitored;

(iv) Must be close enough to communicate orally with the employees; and

(vi) Must not be so busy with other responsibilities that the monitoring function is encumbered.

(2) Mechanical equipment shall not be used or stored in areas where safety monitoring systems are being used.

(3) Employees not engaged in built-up roofing work shall not be allowed in an area where built-up-roofing employees are protected by a safety monitoring system.

(i) *Covers.* Covers for holes in floors, roofs, and other walking/working surfaces shall comply with the following provisions:

(1) Covers located in roadways and vehicular aisles shall be capable of supporting, without failure, at least twice the maximum axle load of the largest vehicle expected to cross over the cover.

(2) All other covers shall be capable of supporting, without failure, the maximum total anticipated load of employees, equipment, and materials, to be applied to the cover at any one time, or 250 pounds (114 kg), whichever is greater.

(3) All covers shall be installed so as to prevent accidental displacement.

(j) *Protection from falling objects.* Falling object protection shall comply with the following provisions:

(1) Toeboards, when used as falling object protection, shall be erected along the edge of the overhead walking/working surface for a distance sufficient to protect employees below.

(2) Toeboards shall be capable of withstanding, without failure, a force of at least 50 pounds (222 N) applied in any downward or outward direction at any point along the toeboard.

(3) Toeboards shall be a minimum of three and one-half inches (9 cm) in vertical height from their top edge to the level of the walking/working surface. They shall have not more than one-half inch (1.3 cm) clearance above the walking/working surface. They shall be solid or have openings not over one inch (2.5 cm) in greatest dimension.

(4) Where tools, equipment, or materials are piled higher than the top edge of a toeboard, paneling or screening shall be erected from the walking/working surface or toeboard to the top of a guardrail system's toprail or midrail, for a distance sufficient to protect employees below.

(5) Guardrail systems, when used as falling object protection, shall have all openings small enough to reject passage of potential falling objects.

(6) During the performance of overhead bricklaying and related work:

(i) No materials or equipment except masonry and mortar shall be stored within four feet (1.2 m) of the working edge.

(ii) Excess mortar, broken or scattered masonry units, and all other materials and debris shall be kept cleared from

the work area by removal at regular intervals.

(7) During the performance of built-up roofing work:

(i) Materials and equipment shall not be stored within six feet (1.8 m) of a roof edge unless guardrails are erected at the edge.

(ii) Materials which are piled, grouped, or stacked near a roof edge shall be stable and self-supporting.

#### § 1926.503 Training requirements.

(a) The employer shall provide a training program for all employees exposed to fall hazards. The program shall enable employees to recognize the hazards of falling and shall train them in the procedures to be followed in order to prevent falls to lower levels and through or into holes and openings in walking/working surfaces and walls.

(1) The employer shall assure that employees have been trained and instructed in the following areas, as applicable:

(i) The identification of fall hazards in the work area;

(ii) The use and operation of guardrail systems, body belt/harness systems, safety net systems, warning line systems, safety monitoring systems, control zones, and other protection to be used;

(iii) The correct procedures for erecting, maintaining, disassembling, and inspecting the systems to be used;

(iv) The role of each employee in the safety monitoring system when this system is used;

(v) The limitations on the use of mechanical equipment during the performance of built-up roofing work on low-pitched roofs;

(vi) The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and

(vii) The standards contained in this subpart.

(2) Training and retraining shall be provided for each employee as necessary.

#### Appendix A to Subpart M—Guardrail Systems

The standard requires guardrail systems and components to be designed and built to meet the requirements of § 1926.502(b) (3), (4), and (5). This Appendix serves as a non-mandatory guideline to assist employers in complying with these requirements. Although employers may use other configurations to comply with these requirements, guardrail system components which meet the following guidelines will be considered as acceptable components that meet the requirements of § 1926.502(b) (3), (4), and (5). Components for which no specific guidelines are given in this

Appendix (e.g., joints, base connections) must be designed and constructed in accordance with the capacity requirements of § 1926.502(b) (3), (4), and (5).

(1) For wood railings: Wood components shall be minimum 1500 lb-ft/in<sup>2</sup> fiber (stress grade) construction grade lumber; the posts shall be at least 2-inch by 4-inch lumber spaced not more than eight feet apart on centers; the toprail shall be at least 2-inch by 4-inch lumber, the intermediate rail shall be at least 1-inch by 6-inch lumber. All lumber dimensions are nominal sizes as provided by the American Softwood Lumber Standards, dated January 1970.

(2) For pipe railings: posts, toprails, and intermediate railings shall be at least one and one-half inches nominal diameter with posts spaced not more than eight feet apart on centers.

(3) For structural steel railings: posts, toprails, and intermediate rails shall be at least 2-inch by 2-inch by 3/4-inch angles, with posts spaced not more than eight feet apart on centers.

#### Appendix B to Subpart M—Roof Widths

This Appendix serves as a guideline to assist employers in complying with the requirements of § 1926.501(c)(9), which provides that safety monitoring systems may be used as the only means of fall protection during the performance of built-up roofing operations on low-pitched roofs 50 feet (15.25 m) or less in width. Each example in the appendix shows a roof plan or plans and indicates where each roof or roof area is to be measured to determine its width. Section views or elevation views are shown where appropriate. Some examples show "correct" and "incorrect" subdivisions of irregularly shaped roofs divided into smaller, regularly shaped areas. In all examples, the dimension selected to be the width of an area is the lesser of the two primary dimensions of the area, as viewed from above. Example A shows that on a simple rectangular roof, width is the lesser of the two primary overall dimensions. This is also the case with roofs which are sloped toward or away from the roof center, as shown in Example B.

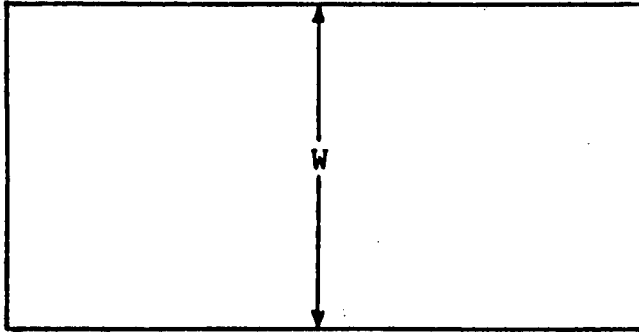
Many roofs are not simple rectangles. Such roofs may be broken down into subareas as shown in Example C. The process of dividing a roof area can produce many different configurations. Example C gives the general rule of using dividing lines of minimum length to minimize the size and number of the areas which are potentially less than 50 feet wide. The intent is to minimize the number of roof areas where safety monitoring systems alone are sufficient protection.

Roofs which are comprised of several separate, noncontiguous roof areas, as in Example D, may be considered as a series of individual roofs. Some roofs have penthouses, additional floors, courtyard openings, or similar architectural features; Example E shows how the rule for dividing roofs into subareas is applied to such configurations. Irregular, nonrectangular roofs must be considered on an individual basis, as shown in Example F.

BILLING CODE 4510-26-M

Example A.

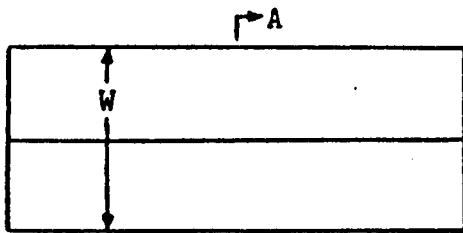
RECTANGULAR SHAPED ROOFS



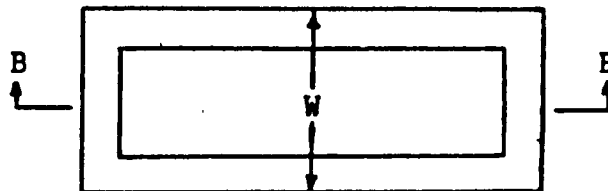
PLAN VIEW

Example B.

SLOPED RECTANGULAR SHAPED ROOFS



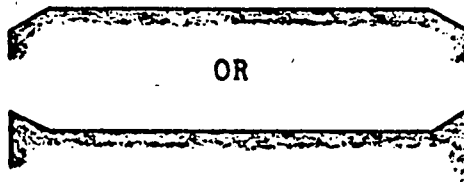
PLAN VIEW



PLAN VIEW



SECTION A-A

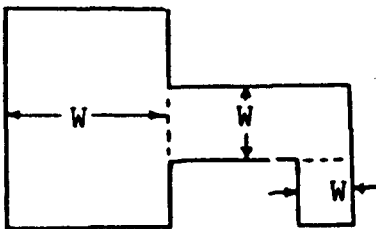


SECTION B-B

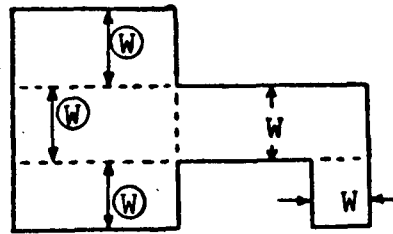
## Example C.

## IRREGULARLY SHAPED ROOFS WITH RECTANGULAR SHAPED SECTIONS

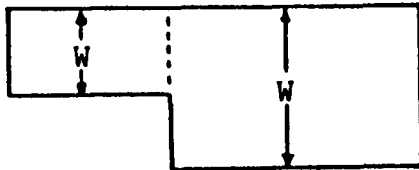
Such roofs are to be divided into sub-areas by using dividing lines of minimum length to minimize the size and number of the areas which are potentially less than or equal to 50 feet (15.25 meters) in width, in order to limit the size of roof areas where paragraph 1926.500(g)(1)(iii) can be applied. Dotted lines are used in the examples to show the location of dividing lines. (W) denotes incorrect measurements of width.



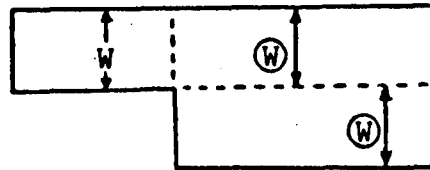
Correct



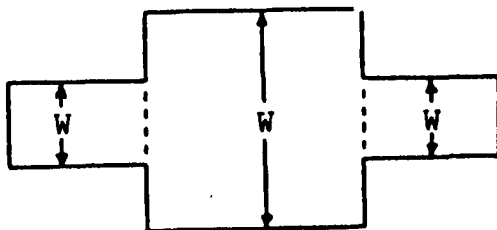
Incorrect



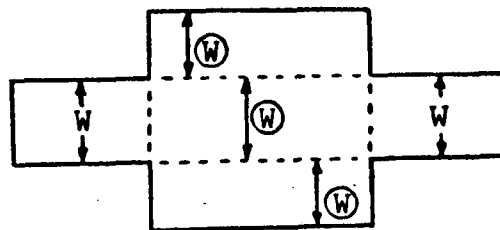
Correct



Incorrect



Correct

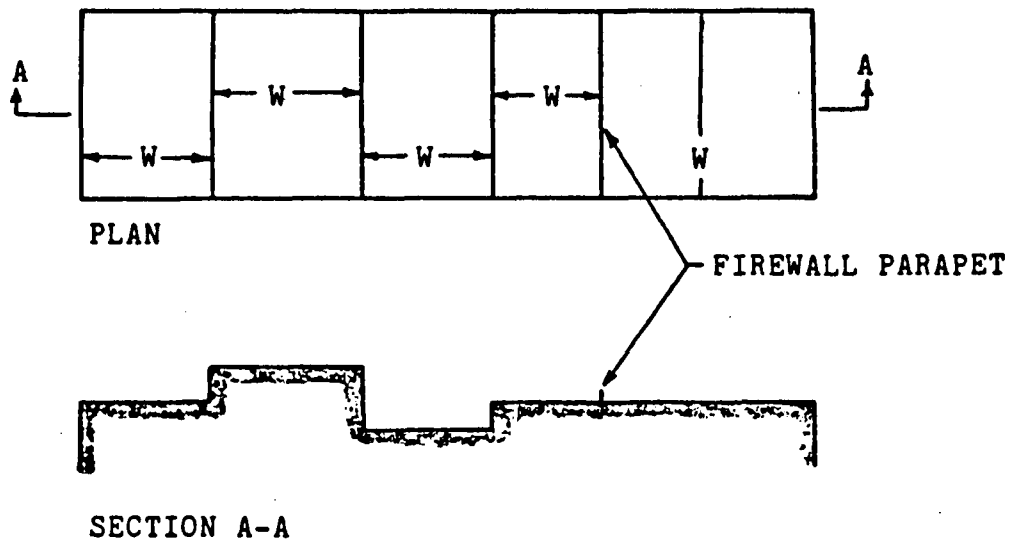


Incorrect

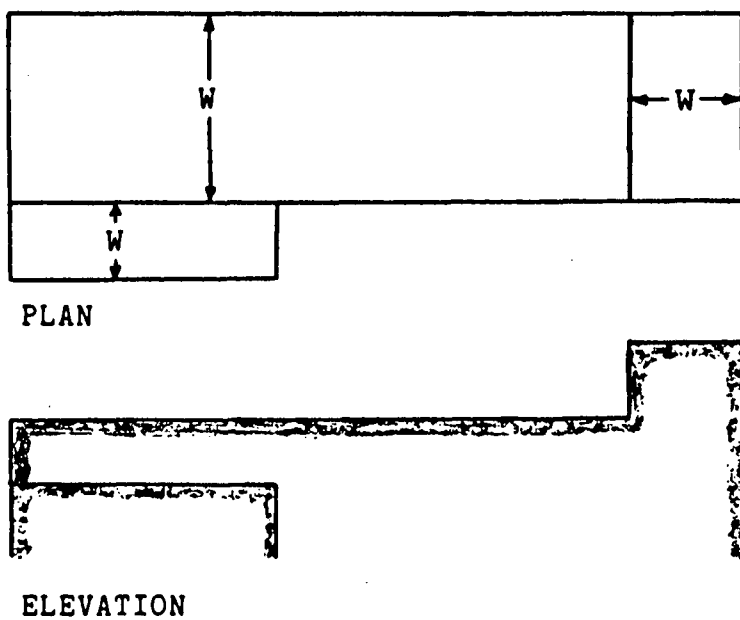
## Example D.

## SEPARATE, NON-CONTIGUOUS ROOF AREAS

1.



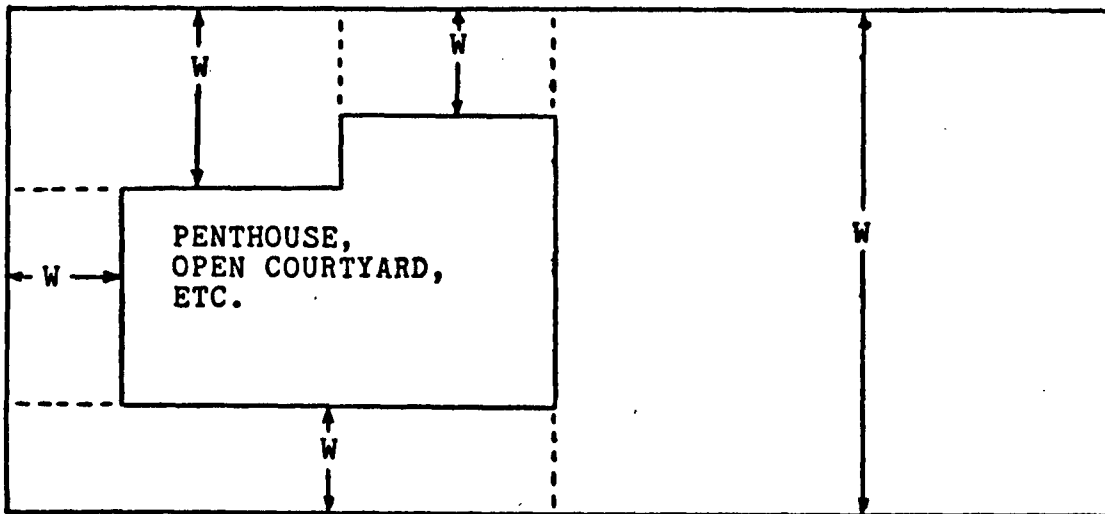
2



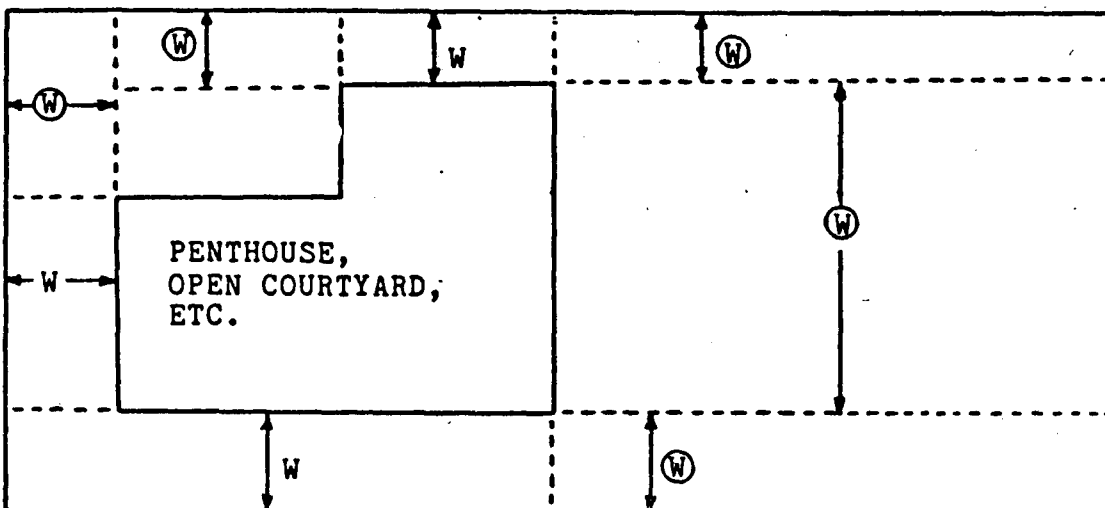
## Example E.

## ROOFS WITH PENTHOUSES, OPEN COURTYARDS, ADDITIONAL FLOORS, ETC.

Such roofs are to be divided into sub-areas by using dividing lines of minimum length to minimize the size and number of the areas which are potentially less than or equal to 50 feet (15.25 meters) in width, in order to limit the size of roof areas where paragraph 1926.500(g)(1)(iii) can be applied. Dotted lines are used in the examples to show the location of dividing lines. (W) denotes incorrect measurements of width.

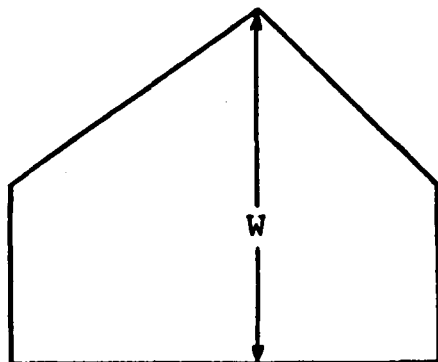


Correct

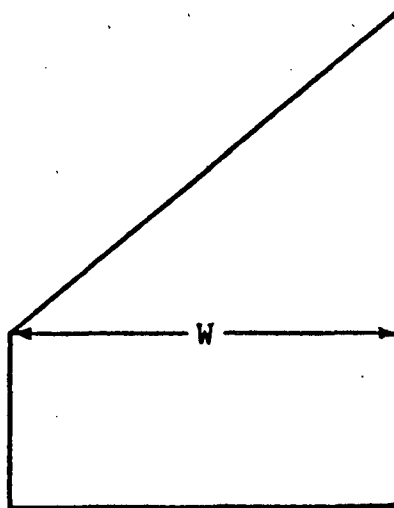


## Example F.

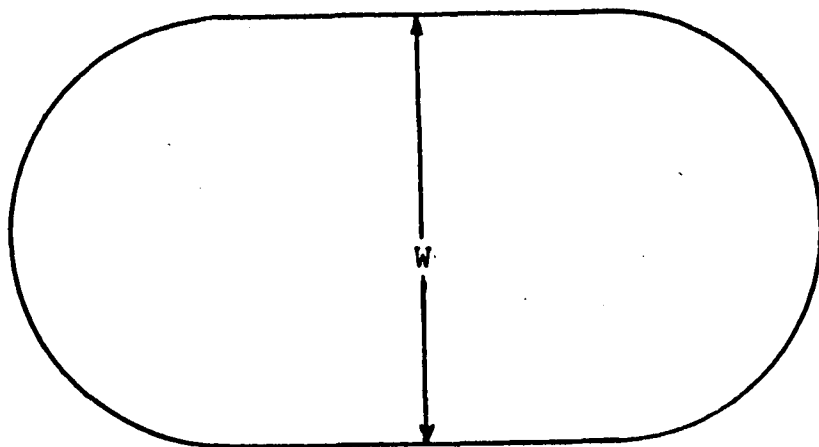
## IRREGULAR, NON-RECTANGULAR SHAPED ROOFS



PLAN



PLAN



PLAN

**Appendix C to Subpart M—Test Procedures for Evaluating Body Belt/Harness Systems and Positioning Device Systems**

The standard requires body belt/harness systems and components to meet the specified performance criteria of § 1926.502(d) (5), (6), and (16), and positioning device systems and components to meet similar requirements of § 1926.502(e) (3) and (4). This Appendix serves as a nonmandatory guideline to assist employers in complying with these requirements. Body belt/harness systems and positioning device systems tested by manufacturers in conformance with the following guidelines will be considered as acceptable systems and components that meet the requirements listed above, provided a force factor of 1.4 is used.

**Testing Methods For Body Belt/Harness Systems.**

(a) *General.* (1) Lifelines and lanyards shall be attached to a fixed anchorage and connected to the body belt/harness or positioning device in the same manner as they would be used to protect employees, except lanyards shall be tested only when connected directly to the anchorage and not to a lifeline.

(2) The fixed anchorages shall be rigid, and shall not have a deflection greater than .04 inches (1 mm) when a force of 2,250 pounds (10 kN) is applied.

(3) The lanyard or lifeline used to create the free fall distance shall be the one supplied with the system, or, in its absence, the worse case lanyard or lifeline intended to be used with the system.

(4) The test weight for each test shall be hoisted to the required level and shall be quickly and cleanly released without imparting any appreciable motion to it.

(5) The strength and force test shall each consist of dropping each specified weight one time without failure of the system being tested. A new system shall be used for each test.

(6) The maximum elongation shall be recorded during the strength test for lanyard systems, and during the force test for all other systems.

(b) *Strength test.* (1) During the testing of all systems, a test weight of 300 pounds plus or minus five pounds (136 kg plus or minus 2.5 kg) shall be used. The weight shall be a rigid, metal cylindrical object or torso-shaped object with a girth of 38 inches plus or minus four inches (96 cm plus or minus 10 cm).

(2) For lanyard systems, the lanyard length shall be six feet plus or minus two inches (1.83 m plus or minus 5 cm) as measured from the fixed anchorage to the attachment on the body belt/harness.

(3) For rope grab-type deceleration systems the length of the lifeline above the centerline of the grabbing mechanism to the lifeline's

anchorage point shall not exceed two feet (0.61 m).

(4) For lanyard systems, for systems with deceleration devices which do not automatically limit free fall distance to two feet (0.61 m) or less, and for systems with deceleration devices which have a connection distance in excess of one foot (0.3 m) (measured between the centerline of the lifeline and the attachment point to the body belt or harness), the test weight shall fall free from a point that is 1.5 feet (46 cm) above the anchorage point, to its free hanging location (a total of 7.5 feet (2.3 m) free fall distance) without interference, obstruction, or hitting the floor or ground during the test.

(5) For deceleration devices with integral lifelines or lanyards which automatically limit free fall distance to two feet (0.61 m) or less, the test weight shall free fall a distance of four feet (1.22 m).

(6) Worst case, normal, and permitted use situations of the system shall be evaluated.

(7) Failure for the strength test shall consist of any breakage or slippage sufficient to permit the weight to fall free from the belt or harness.

(8) Following the test, the system need not be capable of further operation; however, such a non-use condition for deceleration devices shall be readily apparent.

(c) *Force test.* (1) For lanyard systems. (i) A test weight of 130 pounds plus or minus three pounds (59 kg plus or minus 1.6 kg) shall be used. The weight shall be a rigid, metal cylindrical object or torso-shaped object with a girth of 38 inches plus or minus four inches (96 cm plus or minus 10 cm).

(ii) Lanyard length shall be six feet plus or minus two inches (1.83 m plus or minus 5 cm) as measured from the fixed anchorage to the attachment on the body belt/harness.

(iii) The test weight shall fall free from the anchorage level to its hanging location (a total of six feet (1.83 m) free fall distance) without interference, obstruction, or hitting the floor or ground during the test.

(2) For all other systems. (i) A test weight of 220 pounds plus or minus three pounds (100 kg plus or minus 1.6 kg) shall be used. The weight shall be a rigid, metal cylindrical object or torso-shaped object with a girth of 38 inches plus or minus four inches (96 cm plus or minus 10 cm).

(ii) The fall distance to be used in the test shall be the maximum fall distance physically permitted by the system during normal use conditions, up to a maximum free fall distance for the test weight of six feet (1.83 m), except as follows:

(A) For deceleration systems which have a connection link or lanyard, the test weight shall free fall a distance equal to the connection distance (measured between the centerline of the lifeline and the attachment point to the body belt or harness).

(B) For deceleration devices with integral lifelines or lanyards which automatically limit free fall distance to two feet (.61 m), the test weight shall free fall a distance equal to that permitted by the system in normal use. (For example, to test a system with a self-retracting lifeline or lanyard, the test weight shall be supported and the system allowed to retract the lifeline or lanyard as it would in normal use. The test weight would then be released and the force and deceleration distance measured).

(3) Worst case, normal, and permitted use situations of the system shall be evaluated.

(4) The force test is failed whenever the recorded maximum arresting force exceeds 1,800 pounds (8.0 kN) when using the 130 pound (59 kg) weight, or 2,500 pounds when using the 220 pound (100 kg) weight.

(5) Following this test, the system need not be capable of further operation; however, all such incapacities of deceleration devices shall be readily apparent.

**Testing Methods For Positioning Device Systems**

(a) *General.* (1) Single strap positioning devices, shall have one end attached to a fixed anchorage and the other end connected to a body belt/harness in the same manner as they would be used to protect employees. Double strap positioning devices, similar to window cleaner's belts, shall have one end of the strap attached to a fixed anchorage and the other end shall hang free. The body belt/harness shall be attached to the strap in the same manner as it would be used to protect employees. The two strap ends shall be adjusted to their maximum span.

(2) The fixed anchorage shall be rigid, and shall not have a deflection greater than .04 inches (1 mm) when a force of 2,250 pounds (10 kN) is applied.

(3) During the testing of all systems, a test weight of 250 pounds plus or minus three pounds (113 kg plus or minus 1.6 kg) shall be used. The weight shall be a rigid object with a girth of 38 inches plus or minus four inches (96 cm plus or minus 10 cm).

(4) Each test shall consist of dropping the specified weight one time without failure of the system being tested. A new system shall be used for each test.

(5) The test weight for each test shall be hoisted exactly four feet (1.2 m above its "at rest" position), and shall be dropped so as to permit a vertical free fall of four feet (1.2 m).

(6) The test is failed whenever any breakage or slippage occurs which permits the weight to fall free of the system.

(7) Following the test, the system need not be capable of further operation; however, all such incapacities shall be readily apparent.

[FR Doc. 86-26229 Filed 11-24-86; 8:45 am]

BILLING CODE 4510-26-M



**Final Rule**

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**Tuesday  
November 25, 1986**

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**Part IV**

**Department of Labor**

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**Occupational Safety and Health  
Administration**

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**29 CFR Part 1926  
Safety Standards for Stairways and  
Ladders Used in the Construction  
Industry; Notice of Proposed Rulemaking**

## DEPARTMENT OF LABOR

## 29 CFR Part 1926

[Docket No. S-207]

**Safety Standards for Stairways and Ladders Used in the Construction Industry**

**AGENCY:** Occupational Safety and Health Administration, Labor Department.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Occupational Safety and Health Administration (OSHA) proposes that the current provisions of Subpart L of the Construction Industry Standards relating to ladders, and the current provisions of Subpart M relating to stairways be revised and relocated to a new proposed Subpart X. These provisions are relocated for the purpose of reformatting the rules into a more logical grouping of topics. Also, existing Subpart X—Effective Dates, would be deleted as it is no longer necessary.

The proposed standard is written in performance-oriented language, and is intended to eliminate ambiguities and redundancies found in the existing standards. The proposed standard also changes certain requirements applicable to specific types of ladders into general requirements that apply to all ladders.

In addition to using performance-oriented language, all incorporations by reference of national consensus standards and other outside materials are replaced by inclusion of the applicable requirements from those standards in the body of Subpart X. This is intended to assist employers in determining what is required of them without having to refer to documents outside Part 1926. This proposal is another step in OSHA's plan to review its safety standards and to revise them as necessary to provide safer working conditions without imposing unnecessarily burdensome requirements. This proposal is being issued after appropriate consultation with the Advisory Committee on Construction Safety and Health (ACCSH).

**DATES:** Comments on this proposed rulemaking must be postmarked by February 23, 1987. Hearing requests must be postmarked by February 23, 1987.

**ADDRESS:** Written comments, and requests for hearings should be sent to the Docket Officer, Docket No. S-207, U.S. Department of Labor, Room N-3760, 200 Constitution Avenue, NW., Washington, DC 20210.

**FOR FURTHER INFORMATION CONTACT:** Mr. James Foster, Occupational Safety and Health Administration, U.S. Department of Labor, Room N-3637, 200 Constitution Avenue, NW., Washington, DC 20210, Telephone: (202) 523-8151.

**SUPPLEMENTARY INFORMATION:** The author of this proposed rulemaking is Roy F. Gurnham, Office of Construction and Civil Engineering Safety Standards, Occupational Safety and Health Administration.

**I. Background**

Congress amended the Contract Work Hours Standards Act (CWHSA) (40 U.S.C. 327 et seq.) in 1969 by adding a new Section 107 (40 U.S.C. 333) to provide employees in the construction industry with a safer work environment and to reduce the frequency and severity of construction accidents and injuries. The amendment, commonly known as the Construction Safety Act (CSA) [Pub. L. 91-54; August 9, 1969], significantly strengthened employee protection by providing occupational safety and health standards for employees of the building trades and construction industry working on Federally-financed or Federally-assisted construction projects. Accordingly, the Secretary of Labor issued Safety and Health Regulations for Construction in 29 CFR Part 1518 (36 FR 7340, April 17, 1971) pursuant to Section 107 of the Contract Work Hours and Safety Standards Act.

The Occupational Safety and Health Act (the Act) (84 Stat. 1590; 29 U.S.C. 651 et seq.), was enacted by Congress in 1970 and authorized the Secretary of Labor to adopt established Federal standards issued under other statutes, including the Construction Safety Act, as occupational safety and health standards. Accordingly, the Secretary of Labor adopted the Construction Standards, which had been issued under the Construction Safety Act in 29 CFR Part 1518, in accordance with section 6(a) of the Act (36 FR 10466, May 29, 1971). The Safety and Health Regulations for Construction were redesignated as Part 1926 later in 1971 (36 FR 25232, December 30, 1971). The standards dealing with ladders (§ 1926.450 in Subpart L) and stairways (§ 1926.501 in Subpart M) were adopted as OSHA standards as part of this process.

The need for review and revision of Subparts L and M, including the provisions for ladders and stairways, has been recognized by OSHA since the earliest days of the OSH Act. However, other standards activities had higher priorities. After several meetings of the Advisory Committee on Construction

Safety and Health, it was determined in 1977 that a piecemeal approach to reviewing these provisions would not be acceptable. Therefore, a complete review of Subparts L and M was begun. Since that time, ACCSH has reviewed these subparts several times and transcripts of these meetings, including recommendations, have been submitted to the Assistant Secretary. The transcripts are part of the public record as Exhibit 1. The Committee's recommendations, and those of other interested parties, have been carefully analyzed in connection with the present rulemaking. Many of the changes in the proposed standard reflect the recommendations and suggestions of the Advisory Committee and interested persons. Relevant ACCSH comments are discussed below in the Summary and Explanation section. Committee discussions that were inconclusive or did not result in a specific recommendation have also been considered, but are not discussed in this preamble.

After reviewing and evaluating the provisions for ladders and stairways, OSHA believes that certain provisions in the existing standards are redundant or ambiguous. Other provisions simply are not feasible in all situations or are unnecessarily detailed. To eliminate these problems, this proposal focuses on the principal hazards involved when working on stairways and ladders and eliminates what OSHA believes to be unnecessary and redundant provisions in the current standards. In addition, the proposal has been written in performance-oriented language. This proposal also incorporates directly the relevant provisions of the general industry standards (Part 1910) which have been determined by OSHA to be applicable to the construction industry.

For purposes of organization, and in order to make it easier for employers and employees to find specific provisions, this proposal relocates the topics of stairways and ladders from Subparts L and M to a revised Subpart X titled, "Stairways and Ladders." This new subpart, along with revised Subpart L, "Scaffolds," and revised Subpart M, "Fall Protection," constitute a package of inter-related standards which have been rewritten and reorganized to facilitate treatment of the individual subjects. OSHA intends to coordinate the rulemaking activities for these subparts, and hopes to make the final rules for all three subparts effective at the same time. The existing Subpart X, "Effective Dates," in Part 1926 is no longer needed as the effective dates have occurred and there is no current

need to continue to publish them. Therefore, existing Subpart X would be deleted and replaced with this new Subpart X.

OSHA believes that the clarified and reformatted language of the proposal will help employers to understand the requirements for stairways and ladders, and will improve safety by minimizing subjective interpretations of the provisions. By minimizing, if not eliminating, the interpretations needed to understand the requirements of Subpart X, OSHA intends to provide fair and equal notice to all employers of the rules for stairway and ladder safety.

This project is also being coordinated with the project for the revision of related general industry standards in 29 CFR Part 1910, Subpart D—Walking/Working Surfaces. Wherever possible, the 1910 and 1926 proposals use the same language to address similar hazards in order to promote consistency between the two sets of standards.

## II. Hazards Involved

Fall accidents resulting in injuries and fatalities continue to occur at construction sites despite the promulgation of the OSHA Construction Standards in 1971. Examination of available data indicates that these accidents appear to be primarily the result of non-compliance with existing OSHA standards, and not primarily because the current standards improperly address stairway and ladder hazards involved in construction work. Nevertheless, upon reviewing compliance problems and public comments received since 1972, OSHA believes that the regulations dealing with stairways and ladders need updating to clarify the requirements of currently ambiguous and confusing provisions.

Precise accident data for the entire construction industry are not available. In addition, although the number of construction fall accidents on stairways or from ladders can be estimated for a given period of time, the ratio of accidents to the amount of employee exposure to fall hazards cannot be readily determined. However, based upon the limited data which have been compiled, it can be shown that the total number of injuries associated with falls from surfaces covered under Subpart X would be between 17,000 and 34,000 for 1979 alone (Ex. 2: Table IV-1). Although specific accident ratios cannot be projected for the 4 million construction workers potentially covered by Subpart X, the following information has been compiled concerning stairway and ladder accidents in general:

- On a yearly basis, OSHA estimates that as many as four fatalities, 5,360 impact injuries, and 1,900 sprain or strain injuries occur on stairways used in construction (summary of Exs. 15 and 16);

- 65 percent of those injured in stairway accidents require medical treatment (Ex. 3:150).

In a Bureau of Labor Statistics study of 1,400 ladder accidents which resulted in injuries (Ex. 5), the following findings were made:

- 23 percent of the accidents were in construction;
- 42 percent of those injured were working on the ladder when the accident occurred;
- 66 percent of those injured had not been trained in how to inspect ladders for defects before using them;
- 4 percent of the ladders did not have uniformly spaced steps;
- 19 percent of the ladders had one or more defects;
- 39 percent of the ladders had not been extended three feet above the landing level;
- 53 percent of non-self-supporting ladders, had not been secured or braced at the bottom, and 61 percent had not been secured at the top; and
- 53 percent of the ladders broke during use.

Based on its analysis of the above statistics and its field experience enforcing construction standards, OSHA has determined that employees using ladders and stairways are exposed to significant risk of harm. Consequently, OSHA believes revised standards are necessary to reduce that risk.

The following examples of recorded accidents will serve to illustrate the types of accidents that injure and kill employees working on or near ladders. These selected examples are not intended to cover all types of ladder accidents. The examples reference the provisions of the existing standards and the proposals which are directed at the cause of the accident.

- May 20, 1974: Fatality and injury. Two employees were pulling a metal ladder up to the level where they were working. The ladder came in contact with energized electrical wires. One employee was electrocuted, and one was severely burned (Ex. 4:18). Observance of existing paragraph § 1926.450(a)(11), or of proposed paragraph § 1926.1053(b)(12), might have prevented this accident by keeping ladders with conductive siderails away from energized electrical lines.

- September 19, 1979: Fatality. An employee used a ten foot ladder to get to a nine foot high level. To do this, the

ladder had to be placed at an improperly steep angle and the employee fell off the ladder (Ex. 4:20). Observance of existing paragraph § 1926.450(a)(9), or of proposed paragraph § 1926.1053(b)(1), might have prevented the accident by assuring that a proper length ladder was used, or that the ladder was properly secured at its top, which would have allowed safe access and egress to the higher level.

- November 24, 1976: Fatality. A ladder leaning against a scaffold cross-member slipped under the cross-member as two employees climbed it, and the employees fell. Although the ladder top was secured to the scaffold cross-member, the siderails were only long enough to extend one inch above the cross-member (Ex. 4:22). Observance of existing paragraph § 1926.450(a)(10), or the clarified provisions of proposed paragraph § 1926.1053(b)(1), might have prevented this accident by requiring the use of a ladder long enough to extend 36 inches above the point of landing.

- June 2, 1978: One Fatality and eight injuries. At the end of a work shift, too many employees got on a job-made ladder to go home and the ladder collapsed (Ex. 4:28). Observance of existing paragraph § 1926.450(b)(1), or the clarified provisions of proposed paragraph § 1926.1053(a)(1), requiring ladder components to have a safety factor of 4:1, and proposed paragraph § 1926.1053(b)(3) prohibiting the overloading of ladders, might have prevented this accident.

- September 3, 1976: Fatality. An employee stepping onto a ladder fell 22 feet when the ladder slipped on the supporting surface (Ex. 4:32). Observance of existing § 1926.450(a)(10), or the clarified provisions of proposed paragraph § 1926.1053(b)(7) might have prevented this accident by assuring that the ladder was properly secured at the bottom.

The above data and examples suggest that observance of the existing provisions or the proposed provisions might have prevented the accidents. OSHA believes that the proposed provisions will provide clearer, easier-to-understand requirements that will clarify specific requirements and, thereby, more clearly define an employer's duties.

For a further discussion of accident rates and significance of risk, see Section IV. Preliminary Regulatory Impact Assessment and Regulatory Flexibility Analysis.

### III. Summary and Explanation of the Proposal

The following discussion, which tracks the proposal paragraph by paragraph, summarizes and explains the significant substantive changes made to the ladder provisions of existing Subpart L and the significant substantive changes made to the stairway provisions of existing Subpart M.

#### Subpart X—Stairways and Ladders

As the title states, Subpart X would cover the topics of stairways and ladders. The subpart includes provisions for construction, inspection, maintenance, use, fall protection, and the training necessary for employees involved with stairway and ladder construction, use, and repair.

#### Section 1926.1050 Scope, application, and definitions applicable to this subpart.

Proposed paragraph § 1926.1050(a) outlines the scope and application of proposed Subpart X. The subpart would apply to all stairways and ladders found in construction, alteration, repair (including painting and decorating), and demolition workplaces, except that additional requirements for ladders used on or with scaffolds are in §§ 1926.451 (c) and (d) of proposed revised Subpart L—Scaffolds.

In the following discussion, a paragraph citation preceded by the letter "E" refers to a paragraph in existing Subparts L or M. All other citations are to the proposed standard.

Proposed paragraph § 1926.1050(b) lists and defines all major terms used in the proposed standard. Many definitions are the same as those in the existing standard, although some have been reworded for uniformity or clarity. The following terms have been added to or have been changed from the existing definitions:

"Equivalent." This term replaces the existing term "standard strength and construction." It is used in the text of the proposal to allow alternative means of complying with the standard. The definition makes clear that the employer must demonstrate that all alternative means of compliance will provide an equal or greater degree of safety than that attained by using the method or item specified in the standard.

"Failure." This word is used in performance-oriented paragraphs such as § 1926.1052(c)(5) dealing with stairrail strength. Because the word can be interpreted to mean only breakage or a physical separation of component parts, the definition makes it clear that load refusal, the point where the ultimate

strength of a component is exceeded, is also considered to be failure. This is the point where structural members lose their ability to carry loads.

"Handrail." The proposed definition explains that handrails are rails used to provide employees with a handhold for support. The proposed definition deletes the existing language which limits handrails to bars or pipes "supported on brackets from a wall or partition . . . (to provide) a handhold in case of tripping." The new definition recognizes that handrails are not limited in form to wall- or partition-mounted bars or pipes. For example, the top rail of a stairrail system may serve as a handrail when installed according to paragraph § 1926.1052(c)(7).

"Lower levels." This is a new term and is used to describe the areas to which an employee could fall. The term does not apply to the same surface from which the employee could fall.

"Maximum intended load." This is a new term used in paragraph § 1926.1053(a)(1) to clarify the types of loads which must be considered when building a ladder; and is used in paragraph § 1926.1053(b)(3) to limit the amount of load which may be placed on a ladder.

"Riser height." This term replaces the term "rise." There is no change to the definition. For the purposes of this standard, the term "tread" used in the definition includes landings.

"Single cleat ladder." The existing definition is expanded to include siderails which are joined together with rungs and steps, as well as siderails which are joined by cleats.

"Stairrail system." This term replaces the existing term "stair railing," which is often used to describe only the top member of a total system. The proposed definition clarifies the point that the top surface of a stairrail system may also serve as a handrail.

"Unprotected sides and edges." This is a new term and defines such areas as those where there is no wall or guardrail system 39 inches or more in height or where there is no stairrail system 36 inches or more in height. This definition is consistent with the term as used in the proposed revision of Subpart M—Fall Protection, § 1926.500(b).

The following existing definitions would be deleted because they are not used in the proposed subpart or their meanings are obvious: E § 1926.502(h) "stair platform," and E § 1926.502(i) "stair, stairways."

#### Section 1926.1051 General requirements.

This section specifies where stairways and ladders are to be

provided in order for employees to have safe means of access between levels.

Paragraph § 1926.1051(a) would provide that wherever there is a personnel point of access and no ramp, runway, sloped embankment, or personnel hoist is provided, then a ladder or stairway must be provided. This is essentially the same requirement as E § 1926.450(a)(1). Existing rule E § 1926.450(a)(1) requires a means of access at all breaks in elevation, and E § 1926.501(a) requires a means of access wherever the structure is two or more floors (20 feet) high. Public comment is requested in Issue Number 2 as to what is the appropriate height limit before a means of access must be provided.

Paragraph (a)(1) would prohibit the use of spiral stairways which will not be a permanent part of a structure after completion of the structure's construction, except where they provide the only practical means of access during construction. This requirement is essentially the same as E § 1926.501(m) except the language has been changed to clarify that stairways which will be a permanent installation may be used.

Paragraph (a)(2) would require that when ladders are used to provide the only means of access for 25 or more employees, or when they are used to serve simultaneous two-way traffic, they be double-cleated or two or more separate ladders be used. This is essentially the same requirement as E § 1926.450(b)(1), except the existing paragraph is worded in terms of providing one double-cleated ladder only, and the proposed paragraph recognizes the obvious alternative of using two or more ladders.

Paragraph (b) is a new requirement and would require all systems to be provided and installed, and all duties to be performed, before employees begin work where they use ladders or stairways. Work activities must not begin until the ladder or stairway is safe to use.

#### Section 1926.1052 Stairways.

This section specifies the requirements for all stairways used by construction employees.

#### Paragraph § 1926.1052(a) General.

Paragraph (a) sets forth the general requirements for the construction of stairways. Paragraph (a)(1) would require stairs to have landings at least 30 inches long at every 12 feet or less of vertical rise. This is the same requirement as E § 1926.501(i), except the existing term "temporary stairs" is deleted and the phrase "stairways which will not be a permanent part of

the structure being built" is used to more clearly define the requirement.

Paragraph (a)(2) would require stairs to be installed at an angle between the limits of 30° and 50° from horizontal. This is the same requirement as in E § 1926.501(j).

Paragraph (a)(3) would require riser height and tread width to be uniform within each flight of stairs, including any foundation structure which serves as a tread of the stairway. This is the same requirement as E § 1926.501(k).

Paragraph (a)(4) would require platforms be provided wherever a door or gate opens onto a stairway, and that the swing of the door not reduce the effective width of the platform to less than 20 inches. This is the same requirement as E § 1926.500(b)(9).

Paragraph (a)(5) would require metal pan landings to be secured in place before filling, and is the same requirement as E § 1926.501(h).

Paragraph (a)(6) would require all parts of stairways to be free of hazardous projections, such as protruding nails. This is the same requirement as E § 1926.501(c).

Paragraph (a)(7) would require slippery conditions on stairs to be eliminated as soon as possible after they occur. This is the same requirement as E § 1926.501(e).

*Paragraph § 1926.1052(b) Temporary service.*

Paragraph (b) contains rules relating to temporary treads and landings used on stairways.

Paragraph (b)(1) would require stair pans which are not going to be immediately filled to be temporarily fitted with solid material up to the top edge of each pan. This is essentially the same requirement as E § 1926.501(f), except the proposed wording clarifies that the filling material is temporary; must be placed prior to any foot traffic; and must fill each pan at least to its top edge. The proposed rule adds a new provision that such temporary treads and landing must be replaced as they are worn out. As in the existing standard, temporary treads and landings are not required during construction of the stairway itself, on a flight by flight basis.

Paragraph (b)(2) would be a new rule, and would require skeleton metal stairs to be provided with temporary treads and landings prior to any foot traffic if the permanent treads or landings are not to be placed until a later date. Public comment is requested in the Specific Issues section of this preamble on whether or not this provision adequately addresses the hazard of using this type of stair frame.

Paragraph (b)(3) would require wood treads for temporary service (i.e., to fill a metal stair pan for temporary use prior to concrete placement) to be full width so that they do not shift when stepped upon. This is the same requirement as E § 1926.501(g).

Two existing rules for stairways are deleted from the proposed rules because they are redundant. Existing rule E § 1926.501(d) requires debris removal from on and under stairways. This is already provided for in E § 1926.25(a)—Housekeeping. Similarly, existing rule E § 1926.501(1), requiring illumination of stairways, repeats E § 1926.56—Illumination.

*Paragraph § 1926.1052(c) Stairrails and handrails.*

Paragraph (c) sets forth the requirements for stairrails and handrails. It replaces existing rule E § 1926.501(b) which requires stairway railings and guardrails to meet the requirements of existing Subpart M. The provisions of the proposed rule apply to all stairways regardless of their height above lower levels.

Paragraph (c)(1) would require stairways having four or more risers to be equipped with at least one handrail, and one stairrail system along each unprotected side or edge. As briefly discussed in the definitions section above, a stairrail system is a vertical barrier erected along unprotected sides and edges of a stairway to prevent employees from falling to a lower level. A handrail is a rail used to provide employees a handhold for support while climbing, descending, or resting on a stairway. On many stairways, the top of the stairrail system doubles as the required handrail. However, if the stairrail is too high, too low, or does not provide a proper grasping surface, or if no stairrail is required because the stairway is enclosed on both sides with walls, then a separate handrail and handrail support must be provided. These requirements are essentially the same as the requirements in E § 1926.500(e)(1), except the proposed requirements do not depend upon the width of the stairway. OSHA believes the width criteria are unnecessarily specific and do not, in and of themselves, significantly affect worker safety. Consequently, the width-related provisions of E § 1926.500(e)(1) are proposed to be deleted.

Paragraph (c)(2) would require winding and spiral stairways to be equipped with a handrail offset to prevent employees from walking on those portions of the stairways where the treads are less than six inches wide. This is the same requirement as E

§ 1926.500(e)(2), except the proposal expands the rule to include spiral stairways. Spiral stairways are covered because the problem of too narrow a tread is common to both types of stairways.

Paragraph (c)(3) would require the height of stairrails to be not less than 36 inches as measured from the upper surface of the stairrail system down to a point on the upper surface of the tread in line with the face of the riser at the forward edge of the tread. Existing rule E § 1926.500(f)(2) presently specifies a minimum height of 30 inches and a maximum height of 34 inches, measured the same way as required by the proposed rule. The limits specified in the existing rule were developed so they would be compatible with the existing handrail limits which are also 30 and 34 inches, thus allowing one rail to serve two functions. However, a study by the University of Michigan (Ex. 6:56) shows that the minimum height for railings should be 42 inches, but suggests that even 42 inches may be too low as "the height of the stair railing several steps below the point where the fall originates is considerably lower than the stair railing height at the point where the fall originates, thus, it appears that a fall during descent may be more likely to project the subject in the direction of this 'lower' railing, and possibly over the railing" (Ex. 6:57). Nevertheless, in order to recognize the limits already established by many existing building codes, and to allow contractors to continue the common practice of combining the stairrails and handrails into one railing system, OSHA is proposing that the minimum height of stairrails be 36 inches.

Paragraph (c)(4) would require midrails, screens, mesh, intermediate vertical members (such as balusters), or equivalent structural members to be placed between the stairway steps and the top of the stairrail system. This is essentially the same as existing rule E § 1926.500(f)(2) which requires stairrails to be similar in construction to guardrails. Paragraph (c)(4)(i) would require midrails to be located midway in height on a stairrail system. This is the same requirement as contained in E § 1926.500(f)(1). Paragraph (c)(4)(ii) would require screens or mesh, when used, to fill the entire opening between top rail and stairway steps, and paragraph (c)(4)(iii) would require baluster type members to be no more than 19 inches apart. Paragraph (c)(4)(iv) would allow other arrangements of structural members provided all openings in the system are not more than 19 inches wide. These rules would

be new requirements as the existing rule only addresses the use of midrails. However, these new rules would allow greater flexibility for the contractor providing fall protection, and are consistent with proposed paragraph § 1926.502(b) in the proposed revisions to Subpart M—Fall Protection.

Paragraph (c)(5) would require handrails and the top rails of stairrail systems to be capable of withstanding, without failure, a force of at least 200 pounds applied within two inches of the top surface, in any downward or outward direction, and at any point along the top edge. This is essentially the same requirement as contained in E § 1926.501(b), which references E § 1926.500(f). The phrase "with a minimum of deflection" presently in E § 1926.500(f)(1)(iv) is not used in the proposed rule because deflection should not be automatically equated with failure. A rail may deflect and still restrain falls.

Paragraphs (c) (6) and (7) specify the maximum and minimum height for handrails and stairrails which are to serve as handrails. Although the existing rules E § 1926.500(f)(2) and E § 1926.500(f)(4)(ii) specify 30 and 34 inches as appropriate limits, a study by the University of Michigan (Ex. 6:43) has determined that 33 inches is the optimum height, and that a variance from this height of plus or minus three inches is appropriate. This new limit would allow any 36-inch high stairrail system to double as a handrail. However, the upper limit for handrails is proposed to be 37 inches to allow some flexibility in providing a system that can meet the height criterion for both stairrail systems and handrail systems.

Paragraph (c)(8) would require stairrail systems and handrails to be smooth finished in order to prevent clothes from being snagged (which in turn could cause an employee to trip), and to prevent the wounding of employees. This is the same requirement as E § 1926.500(f)(1)(vi)(a) and E § 1926.500(f)(4)(i).

Paragraph (c)(9) would require handrails to provide an adequate handhold for anyone using them. This is the same requirement as in E § 1926.500(f)(4)(i).

Paragraph (c)(10) would require that the ends of stairrail systems and handrails be constructed such that they do not constitute projection hazards. This is the same requirement as in E § 1926.500(f)(1)(vi)(d) and E § 1926.500(f)(4)(i).

Paragraph (c)(11) would require handrails to be spaced a minimum of one and one-half inches away from walls, stairrail systems, and other

objects. This is a change from E § 1926.500(f)(4)(iii), which requires a minimum clearance of three inches. The proposed change does not affect safety, and would bring OSHA standards into conformance with the current requirements of many local building codes, as well as to ANSI standard A12.1-1973, Safety Requirements for Floor and Wall Openings, Railings, and Toeboards, paragraph 7.6.

Paragraph (c)(12) would require unprotected sides and edges of stairway landings to be provided with guardrail systems. The provisions of proposed Subpart M would apply as to the specifics of the guardrail systems, and a 42 inch (plus or minus three inches) high guardrail would be required. While this appears to be a new rule, it is actually a clarification that the minimum height of 36 inches for stairrail systems does not apply to landing areas.

#### *Section 1926.1053 Ladders.*

This section specifies the requirements for all ladders used by construction employees.

The existing standard, in paragraphs E § 1926.450(a) (3), (4), and (5), requires manufactured and fixed ladders to "be in accordance with the provisions of American National Standards Institute" safety codes. Although the specific safety codes are identified, the applicable paragraphs of each code are not specified. To eliminate confusion as to which provisions apply, and to eliminate the need for employers to refer to documents outside Part 1926, the applicable provisions of the ANSI documents have been incorporated into the text of Subpart X, and are identified in the following discussion. Where the applicable paragraphs have been updated by more recent ANSI documents, the proposal incorporates the more recent language.

#### *Paragraph § 1926.1053(a) General.*

Paragraph (a) sets forth the general requirements for the construction of ladders.

Paragraph (a)(1) would specify minimum strength requirements for all ladders.

Paragraph (a)(1)(i) would require each portable ladder and each job-built ladder to be capable of supporting, without failure, at least four times the maximum intended load applied or transmitted to that ladder when the ladder is placed at an angle of 75½ degrees from the horizon. This minimum strength requirement for portable ladders is essentially the same requirement as contained in the E § 1926.450(a) (3) and (4) references to the A14.1-1968 ANSI standard for portable

wood ladders (Ex. 8) which addresses this concern in paragraph 4.1.2.1, and the A14.2-1956 ANSI standard for portable metal ladders (Ex. 9) which addresses this concern in paragraph 4.2.1. However, the 200 pound load specified by ANSI is deleted in favor of the proposed performance-oriented language which addresses more situations. Breakage, separation of component parts, or load refusal would be used as the failure criteria, as some rung deformation will normally result when such loads are applied, and a deformed rung does not necessarily indicate a ladder which is unsafe for use. Job-built ladders do not have minimum strength criteria either in the existing OSHA rules or in the ANSI standard for job-built ladders A14.4-1979 (Ex. 14). However, their potential use is the same as that of manufactured portable ladders, and, therefore, the proposed standard would impose the same strength requirements.

Paragraph (a)(1)(ii) would require fixed ladders to be capable of supporting, without failure, at least two loads of 250 pounds each, concentrated between any two consecutive points of attachment plus other anticipated loads such as those caused by winds and ice buildup. The paragraph would also require that each step and rung be capable of supporting a minimum concentrated load of 250 pounds, applied in the middle of its span. This requirement is essentially the same as contained in the E § 1926.450(a)(5) reference to the ANSI requirement for fixed ladders ANSI A14.3-1956 (Ex. 10), which addresses this in paragraph 3. However, the specific requirement is based on the updated edition of this standard, ANSI A14.3-1984 (Ex. 13), paragraph 3.2.1.1. The ANSI criteria is based on loads of 250 pounds, and is consistent with OSHA's current use of 250 pounds as the average design weight of an employee with tools.

Ladders built in conformance with Appendix A would be deemed by OSHA to meet the strength requirements of paragraph (a)(1). This includes extra heavy duty type 1A ladders built in accordance with the 1982 ANSI standards for portable metal ladders and portable reinforced plastic ladders. ANSI requires these types of ladders to have a safety factor of only 3.3, however, OSHA believes that the extensive testing procedures also required by ANSI are sufficient to insure adequate ladder strength. Appendix A references the current ANSI standards that apply to portable wood ladders, portable metal ladders, portable reinforced plastic ladders, fixed ladders,

and job-made ladders (Exs. 11-14, 17). Whereas the existing standard requires conformity to similar earlier specifications (see E § 1926.450(a) (3), (4), and (5)) the proposed standard does not, as it is written in performance-oriented language. This would allow design freedom to employers who desire to engineer their own ladders, and would provide an acceptable design for employers who do not desire to or cannot engineer the systems they use. The important consideration is that the ladder be capable of safely supporting the loads imposed.

Paragraph (a)(2) would require ladder rungs, cleats, and steps to be parallel, level, and uniformly spaced when the ladder is in position for use. This requirement is based on the E § 1926.450(a)(3) reference to the ANSI standard for portable wood ladders, A14.1-1968 (Ex. 8), which addresses this in paragraph 4.2.1.2. Although this requirement is not included in its entirety in the other ANSI standards referenced by E § 1926.450(a) (4) and (5), OSHA believes that such a requirement is needed for all ladders.

Paragraph (a)(3) would require that rung, cleat, and step spacing be not less than six inches apart, nor more than 12 inches apart, as measured along the siderail, and that the limits be six and 16½ inches for individual step or rung ladders. Limits are specified in the existing standard by referencing the applicable ANSI standards for portable wood ladders, portable metal ladders, and fixed ladders in paragraphs E § 1926.450(a) (3), (4), and (5). The proposed limits are the general limits used in ANSI's current standards for the most commonly used types of ladders (Exs. 11-14, 17). Public comment is requested on these limits in Issue Number 7.

Paragraph (a)(4) would specify minimum rung, cleat, and step length for various ladders. These limits are essentially the same as contained in the E § 1926.450(a) (3), (4), and (5) references to existing ANSI requirements A14.1-1956 (Ex. 8), paragraph 4.2.1.3, ANSI A14.2-1956 (Ex. 9), paragraph 3.2.1, and ANSI A14.3-1956 (Ex. 10), paragraph 4.1.3. The limit for reinforced plastic ladders is based on the requirements for such ladders in ANSI A14.5-1982 (Ex. 17). Limits are specified only for the most commonly used types of ladders. Public comment is requested on these limits in Issue Number 7.

Paragraph (a)(5) would require individual rung ladders to be shaped such that employees' feet cannot slide off rung ends. This is the same requirement as contained in paragraph

4.1.5 of ANSI A14.3-1956 (Ex. 10) which is referenced by E § 1926.451(a)(5).

Paragraph (a)(6) would require rung and steps of metal ladders to be corrugated, knurled, dimpled, coated with skid resistant material, or be otherwise treated to minimize slipping. This is the same requirement as in paragraph 3.1.5 of ANSI A14.2-1956 (Ex. 9) which is referenced by E § 1926.451(a)(4).

Paragraph (a)(7) would prohibit the tying together of ladder sections to make a longer ladder, unless the sections are designed for such use. This is the same requirement as in paragraphs 5.2.9 of ANSI A14.1-1968 (Ex. 1) and 5.3.6 of ANSI A14.2-1956 (Ex. 9) which are referenced by E § 1926.451(a) (3) and (4), respectively.

Paragraph (a)(8) would require stepladders to be provided with a metal spreader or other locking device to keep the ladder in an open position when being used. This is the same requirement as in paragraphs 4.2.1.6 of ANSI A14.1-1968 (Ex. 8) and 3.3.8 of ANSI A14.2-1956 (Ex. 9) which are referenced by E § 1926.451(a) (3) and (4), respectively.

Paragraph (a)(9) would require that a spliced siderail be equivalent in strength to a siderail of the same length made of one piece of the same material. This is the same requirement as E § 1926.450(b)(7), except the proposed rule would apply to all ladders, not just job-made ladders, as proper splices are important on all ladders.

Paragraph (a)(10) would require that when two or more separate ladders are used to reach an elevated work area, the ladders be offset and a platform be used between ladders. This is the same requirement as contained in E § 1926.450(b)(3), except the proposal would extend this rule to all multiple ladder situations, and not just those involving job-made ladders.

Paragraphs (a) (11) and (12) would require ladder platforms and landings to be provided with guardrails and overhead fall protection. The provisions of proposed Subpart M would apply as to the specifics of the guardrail and overhead protection construction. These are the same requirements as are contained in E § 1926.450(b)(3), except under the proposed rules, toeboards would not be required if there are no employees below the platform or landing.

Paragraph (a)(13) would require ladder surfaces to be free of puncture and laceration hazards. This provision is essentially the same provision as those contained in the E § 1926.450(a) (3), (4), and (5) references to existing ANSI requirements A14.1-1968 (Ex. 8),

paragraph 3.1.1.1, ANSI A14.2-1956 (Ex. 9), paragraph 3.1, and ANSI A14.3-1956 (Ex. 10), paragraphs 4.1.4 and 4.2. These paragraphs require ladders to be without defects such as sharp edges, splinters, and burrs. The proposed provisions would also apply to job-made ladders.

Paragraph (a)(14) would prohibit wood ladders from being coated with any opaque covering except as necessary for identification or warning labels. This provision is intended to prohibit covering or painting over any splits or cracks in any wood ladder component which would cause the defect to be unnoticeable to a ladder user. This requirement is based on the E § 1926.450(a)(3) reference to ANSI requirement A14.1-1968 (Ex. 8), which addresses this in paragraph 5.1.9. However, the specific wording of the proposal is based on the revised ANSI A14.1-1982 (Ex. 11), paragraph 8.4.6.3.

Paragraph (a)(15) would require a minimum perpendicular clearance of seven inches between fixed ladder rungs, cleats, and steps, and any obstruction behind the fixed ladder. This is essentially the same requirement as contained in the E § 1926.450(a)(5) reference to ANSI A14.3-1956 (Ex. 10), which addresses this in paragraph 5.4. However, the proposal does not provide for unavoidable obstructions as in the existing rule. This change is made in line with the language of the more recent ANSI standard A14.3-1984 (Ex. 13), paragraph 5.4.2.1.

Paragraph (a)(16) would require a minimum clearance of 30 inches between fixed ladders and any obstruction on the climbing side of the ladder. Where the clearance is less than 30 inches because of unavoidable obstructions, paragraph (a)(17) would require a deflection device to be installed that would guide employees around the obstruction. These requirements are essentially the same as the E § 1926.450(a)(5) reference to ANSI A14.3-1956 (Ex. 10), which addresses this in paragraph 5.1. However, the proposal is changed to reflect the modifications contained in ANSI A14.3-1984 (Ex. 13), paragraphs 5.4.1.1 and 5.4.1.3.

Paragraph (a)(18) would specify minimum and maximum step-across distances at landings for fixed ladders of seven inches and 12 inches. This is the same requirement as in paragraph 5.6 of ANSI A14.3-1956 (Ex. 10) which is referenced by E § 1926.450(a)(5), except the existing two and one-half inch minimum limit is changed to seven inches to be consistent with rule (a)(15).

Paragraph (a)(19) would require a minimum of 15 inches side clearance (from the ladder centerline) for all fixed ladders that do not have cages or wells. This is the same provision as in paragraph 5.2 of ANSI A14.3-1956 (Ex. 10) which is referenced by E § 1926.450(a)(5).

Paragraphs (a) (20) and (21) would require fixed ladders to be provided with cages, wells, ladder safety devices, or self-retracting lifelines where the length of climb is less than 24 feet but the top of the ladder is more than 24 feet above lower levels, and for all fixed ladders where the length of climb equals or exceeds 24 feet. This requirement is based on the E § 1926.450(a)(5) reference to ANSI A14.3-1956 (Ex. 10) which addresses this concept in paragraph 6.1.2. However, the proposed requirement reflects the updated and clarified language of A14.3-1984 (Ex. 13), paragraph 4.1. The proposal would also allow the use of the self-retracting lifelines as alternative fall protection to wells, cages, and ladder safety devices.

Paragraphs (a) (22) and (23) would set forth the requirements for fixed ladder cage and well construction and are essentially the same as ANSI A14.3-1956 (Ex. 10) paragraph 6.1, which is referenced by E § 1926.450(a)(5). However, the proposal reflects the updated and clarified language of ANSI A14.3-1984 (Ex. 13), paragraphs 6.1 and 6.2. Significant differences between the ANSI documents are as follows: Maximum cage size is increased from 28 inches to 30 inches to allow easier employee movement; wells are now required to encircle the ladder completely and be free of projections; wells must now have an inside clear width of at least 30 inches; and the bottom access opening shall not be less than seven feet nor more than eight feet high. Public comment is requested on these changes.

Paragraphs (a) (24) and (25) would set forth the requirements for ladder safety devices and is based on the E § 1926.450(a)(5) reference to ANSI A14.3-1956 (Ex. 10) which covers this topic in paragraph 6.5. However, the proposal reflects the updated and clarified language of ANSI A14.3-1984, paragraph 7.

Paragraph (a)(24)(i) would require ladder safety devices and their support systems (such as a ladder to which they are attached) to be capable of withstanding, without failure, a drop test consisting of an 18-inch (.41 m) drop of a 500 pound (226 kg) weight. This provision is based on the ANSI A14.3-1984 (Ex. 13), paragraph 7.1.3. Paragraph (a)(24)(ii) would require the devices to be of a design which permits employees

using the system to ascend or descend without continually having to manipulate any part of the system. The requirement is the same as paragraph 7.3.1 of ANSI A14.3-1984. Paragraph (a)(24)(iii) would require ladder safety devices to limit the descending velocity of an employee to seven feet per second (2.1 m/sec) or less within two feet (.61 m) after a fall occurs. In establishing this velocity for ladder safety devices, it was noted that a National Bureau of Standards' report (Ex. 18) suggests a maximum descent rate of 15 feet per second for an uninjured employee and 10 feet per second (3.1 m/sec) for an injured employee for descent devices. Descent devices are a type of equipment used for escapes, whereby a worker travels down a rope or line without obstructions in the descent path. In adapting the concept of allowing a rate of descent for personal fall protection systems for climbing protection, OSHA is proposing a more conservative rate of seven feet per second (2.1 m/sec) for ladder safety devices because the ladder may injure an employee during descent. OSHA believes that in addition to providing protection from the force of the fall, this rate would enable an employee to regain control on the ladder if desired, or to allow for emergency egress at a reasonable and safe speed. This represents the speed attained after free falling approximately one foot (30.5 cm). OSHA requests comments and data in the Specific Issues section of this preamble on whether or not a descent rate of 10 feet per second would provide adequate protection. Paragraph (a)(24)(iv) would require that the maximum length of the connection between the carrier or lifeline and the point of attachment to the body belt not exceed nine inches (23 cm). This requirement is based on a recommendation contained in Drs. Chaffin and Stobbe's report, "Ergonomic Considerations Related to Selected Fall Prevention Aspects of Scaffolds and Ladders as Presented in OSHA Standard, 29 CFR Part 1910, Subpart D" (Ex. 19) which indicates that this distance is needed to ascend and descend a ladder in a position that is not awkward.

Paragraph (a)(25) would specify the mounting requirements for ladder safety devices. Paragraph (a)(25)(i) would require mountings for rigid carriers to be attached at each end of the carrier with intermediate mountings spaced along the entire length of the carrier. This is based on ANSI A.14.3-1984, paragraph 7.3.4. Paragraph (a)(25)(ii) would require mountings for flexible carriers to be attached at each end of the carrier, and that when the system is exposed to

wind, cable guides be installed at a minimum spacing of 25 feet (7.6 m) and a maximum spacing of 40 feet (12.2 m) along the entire length of the carrier to prevent wind damage to the system. These are the same requirements as in ANSI A.14.3-1984, paragraph 7.3.5. Paragraph (a)(25)(iii) would require that the design and installation of mountings and cable guides not reduce the design strength of the ladder. This is based on ANSI A14.3-1984, paragraph 7.1.4.

Paragraphs (a) (26), (27), and (28) would specify the height of ladder siderails at landings, the amount of siderail flare, and would require siderails and steps or rungs to be continuous in the extension (that is, they shall be carried to the next regular step or rung beyond or above the 42 inch minimum height). These are the same requirements as in ANSI A14.3-1956 (Ex. 10), paragraph 6.3, referenced by § 1926.450(a)(5), except the minimum and maximum siderail flare is changed from 18 inches and 24 inches to 24 inches and 30 inches to reflect ANSI A14.3-1984 (Ex. 13) paragraph 5.3. Paragraph (a)(29) would require individual rung ladders, except those covered by manhole covers or hatches, to extend 42 inches above the landing or be equipped with grabrails. This is based on the ANSI A14.3-1984 (Ex. 13) paragraph 5.3.3 revision of ANSI A14.3-1956 (Ex. 10) paragraph 6.3 which is referenced by E § 1926.450(a)(5).

#### *Paragraph § 1926.1053(b) Use.*

Paragraph (b) sets forth the requirements for safe ladder use by construction employees.

Paragraph (b)(1) would require ladder siderails to extend at least three feet above the upper level or surface to which the ladder is used to gain access. This is substantively the same requirement as E § 1926.450(a)(9). The proposal would provide that when such extensions are not possible because of the ladder length, then the ladder shall be secured at the top and employees be provided with a grasping device such as a grabrail. This is essentially the same provision as in E § 1926.450(a)(9), except that the proposal would require the securing of the ladder and would not limit alternative solutions to grabrails.

Paragraph (b)(2) would require ladders to be free of slipping hazards. This requirement is based on the E § 1926.450(a)(3) reference to ANSI A14.1-1968 (Ex. 8), which in paragraph 5.1.11 requires ladder rungs to be "kept free of grease and oil"; the E § 1926.450(a)(4) reference to ANSI A14.2-1956 (Ex. 9), which requires in paragraph 8 that ladders "be maintained

in safe condition;" and the E § 1926.450(a)(5) reference to ANSI A14.3-1956 (Ex. 10), which requires in paragraph 5.2.6.4 that ladders be "cleaned of oil, grease, or slippery materials." However, oil and grease are only two of many slip-causing substances and, therefore, paragraph (b)(2) would use broader language.

Paragraph (b)(3) would require that ladders not be loaded beyond their maximum intended load-carrying capacity, nor beyond their rated capacity. This requirement is a clarification and extension of the E § 1926.450(a)(3) reference to ANSI A14.1-1968 (Ex. 8) which addresses overloading in paragraph 5.2.2. The proposal would extend the rule against overloading to all ladders in all situations.

Paragraph (b)(4) would require that ladders be used only for the purpose for which they were designed. This provision is based on the E § 1926.450(a)(3) reference to ANSI A14.1-1968 (Ex. 8), which in paragraph 5.2.12 prohibits using ladders as guys, braces, skids, or for other than their intended purpose. This provision is also based on E § 1926.450(a)(7) which prohibits using ladders in a horizontal position as a scaffold platform, or a runway. The proposed restriction would apply to all ladders, not just portable ladders.

Paragraph (b)(5) would require non-self-supporting ladders to be used such that the angle of inclination is approximately one to four, horizontal distance to working ladder length distance. The proposed rule would also include the language of ANSI A14.4-1979 (Ex. 14), Safety Requirements for Job-Made Ladders, paragraph 4.4.1, which increases the required minimum angle to a ratio of one to eight for job-made ladders made with spliced siderails. This paragraph also would require fixed ladders to be used at a pitch no greater than 90 degrees from the horizontal as measured to the backside of the ladder. This rule is based on the ANSI A14.3-1956 (Ex. 10) provision in paragraph 7.1, which is contained in the E § 1926.450(a)(5) reference.

Paragraph (b)(6) would require ladders to be used only on stable and level surfaces unless secured to prevent accidental displacement. This requirement is based on E § 1926.450(a)(6), which requires "a substantial base"; on the E § 1926.450(a)(3) reference to ANSI A14.1-1968 (Ex. 8), which in paragraph 5.2.3, requires a "secure footing" for ladders; and on paragraph 5.2.5, which requires a stable footing. The additional

requirement that the surface must be level or the ladders be secured is based on ANSI A14.1-1982 (Ex. 11), paragraph 8.3.4, and is included as OSHA believes that surfaces which are not level do not provide suitable support for unsecured ladders.

Paragraph (b)(7) would prohibit the use of ladders on slippery surfaces unless they are secured or provided with slip-resistant feet. This is essentially the same requirement as the E

§ 1926.450(a)(3) reference to ANSI A14.1-1968 (Ex. 8), which addresses this in paragraph 5.2.20, except the requirement is modified to reflect the more recent language of ANSI A14.1-1982 (Ex. 11), paragraph 8.3.4.

Paragraph (b)(8) would require ladders placed in passageways, doorways, or any location where they can be displaced by other activities or traffic, to be secured in place, or a barricade system used to keep activities and traffic away from the ladder. This is the same provision as E § 1926.450(a)(8), except for the additional proposed provision to allow the ladders to be tied off or otherwise secured. OSHA believes that if a ladder is secured against displacement then no problem exists. The type of tie-off required would vary depending on the type of activity taking place, and the likelihood of ladder displacement.

Paragraphs (b) (6), (7) and (8), would replace E § 1926.450(a)(10), which simply requires portable ladders to be tied, blocked, or otherwise secured. The revised rules would more clearly identify the hazards to be protected against by requiring such restraints where the footing is unstable, unlevel, slippery, or where the ladder can be accidentally displaced by other work activities or traffic.

Paragraph (b)(9) would require the area around the top and bottom of ladders to be kept clear. This is the same requirement as contained in E § 1926.450(a)(6), except that it would apply to fixed ladders as well as portable ladders.

Paragraph (b)(10) would require the tops of non-self-supporting ladders to be placed such that the two siderails are equally supported, or provided with a single support attachment. This requirement is proposed to insure proper ladder stability and is based on the E § 1926.450(a)(4) reference to ANSI A14.2-1956 (Ex. 9), which addresses this in paragraph 5.3.2; on ANSI A14.1-1982 (Ex. 11), which addresses it in paragraph 8.3.5; and on ANSI A14.2-1982 (Ex. 12), which covers this in paragraph 8.3.5.

Paragraph (b)(11) would provide that ladders not be moved, shifted, or extended while occupied. Essentially,

this would be a new rule although E § 1926.450(a)(3) references ANSI A14.1-1968 (Ex. 8) which contains in paragraph 5.2.17 a prohibition against extending a ladder while occupied. The proposed rule is further supported by paragraph 8.3.15 of both ANSI A14.1-1982 (Ex. 11) and A14.2-1982 (Ex. 12) which prohibit relocating a ladder while it is occupied, and by paragraph 8.3.13.1 of both 1982 ANSI standards which prohibit extending a ladder while occupied.

Paragraph (b)(12) would require ladders to have nonconductive siderails when used where the ladder could contact energized equipment, except as provided in 29 CFR 1926.951(c)(1) of Subpart V—Power Transmission and Distribution. This is essentially the same requirement as E § 1926.450(a)(11), except the existing rule does not reference the Subpart V rule and, therefore, is in conflict with that provision. Subpart V provides that "portable metal or conductive ladders shall not be used near energized lines or equipment except as may be necessary in specialized work such as in high voltage substations where nonconductive ladders might present a greater hazard than conductive ladders."

Paragraph (b)(13) would prohibit using the top of a stepladder as a step. This is the same provision as ANSI A14.1-1968 (Ex. 8), paragraph 5.2.13, referenced by E § 1926.450(b)(3), except it would apply to all stepladders and not just wood stepladders.

Paragraph (b)(14) would prohibit using the crossbracing on stepladders as a step. This is the same provision as ANSI A14.1-1968 (Ex. 8), paragraph 5.2.22, referenced by E § 1926.450(a)(3), except it would apply to all stepladders and not just wood stepladders. Crossbracing is not designed as a step and its use as such can result in falls from the ladders.

Paragraph (b)(15) would require ladders to be inspected for visible defects prior to the first use of each workshift and after any occurrence which could affect their use. Public comment is requested on this requirement in Issue Number 5.

Paragraph (b)(16) would provide that ladders with structural defects be immediately tagged or withdrawn from service until repaired. This is essentially the same rule as E § 1926.450(a)(2), except tagging is added for defective ladders which are not or can not be immediately removed from service. The proposed language makes it clear that ladders can be reused after they have been repaired. The requirement in E § 1926.450(a)(2) that metal ladder inspections include a check for rung

corrosion would be deleted as being redundant of the general inspection requirement contained in (b)(15).

Paragraph (b)(17) would require ladder repairs to restore the ladder to a condition meeting the design criteria of the ladder. This would be a new requirement, and means that if, for example, a Type 1A extra-heavy-duty-rated ladder has a broken rung, the replacement rung also must be capable of supporting at least a 300 pound load.

Existing provisions E § 1926.450(b)(2); the first line of (b)(3); and provisions (b) (4), (5), (6), (8), (9), (10), (11), and (12) are specification-type requirements for job-made ladders. They are proposed to be deleted as being redundant and in conflict with the performance-oriented provisions of proposed paragraph § 1926.1053(a)(1). Contractors who wish to refer to a guide table for the construction of job-made ladders, should use their own design tables which are compatible with § 1926.1053(a)(1), or use the ANSI standard for job-made ladders, A14.4-1979. As written, the existing rules are out of context and are not sufficiently detailed to address adequately job-made ladder construction. In addition, the provisions of paragraphs E § 1926.450(b) (6), (10), and (11) were developed for manufactured portable wood ladders and not job-made ladders. The proposed language corrects these problems.

#### *Section 1926.1060 Training.*

This section is in addition to the training requirements of E § 1926.21; however, the provisions may be cited only when one or more citations are issued under the other provisions of Subpart X.

Paragraph (a)(1) would clarify the types of hazards to be addressed in all training programs given to educate employees using ladders and stairways. Stairways and ladders are safe only when they are designed, built, located, maintained, and used properly. This section contains requirements as to how the requisite training is to be carried out. However, this section does not specify the details of the training program. Instead, it requires employees to be instructed in the proper way to build, use, place, and maintain stairways and ladders. In this way, the section provides flexibility for the employer in designing the training program.

Paragraph (a)(2) requires training and retraining to be provided for each employee as necessary. OSHA requests public comment on the frequency of training in Issue Number 8.

*Specific issues.* The public is specifically requested to comment on the following issues:

1. The preamble identifies the provisions in the standard which are new or which are changed from the provisions of the existing standard. OSHA believes that many employers are already following many of these revised provisions. However, OSHA will evaluate, on the basis of all the evidence submitted to the public record, the likely effectiveness of the proposed revised and new provisions and will include in the final rule only those revised and new requirements for which a significant reduction in the risk of incurring injuries or fatalities would be supported by the final record. Hence, the following issues are raised:

(a) Public comment is requested on the current level of practice which meets the requirements of the proposed changes;

(b) Public comment is requested on the practicality and feasibility of the proposed changes, and whether implementation of the proposed changes will reduce the occurrence or severity of accidents;

(c) Public comment is requested on the amount of any costs or savings which have not been identified by OSHA (see Section IV of this preamble—Preliminary Regulatory Impact Assessment and Regulatory Flexibility Analysis) which might result from the proposed changes;

(d) Public comment is requested on the availability and content of accident reports which indicate that the proposal does not properly address stairway and ladder hazards.

2. Existing rule E § 1926.450(a)(1) requires a means of access at all breaks in elevation. Existing rule E § 1926.501(a) requires a means of access on structures two or more floors (20 feet) high. Public comment is requested on an appropriate height limit where a means of access should be required. One suggestion is to require a ladder, stairway, runway, or ramp wherever there is a break in elevation of 19 inches or more, the equivalent of two standard steps. Comments should include appropriate injury and cost data.

3. Existing rule E § 1926.450(a)(3) references ANSI A14.1-1968 which prohibits the use of wooden single rail ladders in paragraph 5.2.10. However, this prohibition is not found in latter ANSI documents. OSHA believes such ladders are inherently difficult and hazardous to use, and public comment is requested on whether or not the use of such ladders should continue to be prohibited. Comments should address costs, accidents, and all types of

construction materials, i.e., wood, metal, plastic, etc.

4. The requirements of proposed rules §§ 1926.1053(a)(10)–(12) are based on E § 1926.450(b)(3) which applies only to job-made ladders. Public comment is requested on whether or not it is appropriate to extend this rule to all ladders. Comments should include appropriate cost and injury data.

5. Proposed rule § 1926.1053(b)(15) requires ladders to be inspected for visible defects prior to the first use of each workshift and after any occurrence which could affect their use. The requirement for an inspection is implied in E § 1926.450(a)(2), and required by the respective E §§ 1926.450(a) (3), (4), and (5) references to ANSI provisions A14.1-1968 (Ex. 8), paragraph 5.1.10; A14.2-1956 (Ex. 9), paragraph 5.2.4; and A14.3-1956 (Ex. 10), paragraph 8. The referenced ANSI provisions do not specify a definite frequency rate for inspections, however, the proposed frequency is similar to that set out in paragraphs 8.4.1 of ANSI 14.1-1982 (Ex. 11), and A14.2-1982 (Ex. 12), which suggest that inspections be made prior to each use. Public comment is requested on the specified frequency of inspection.

6. Proposed rule § 1926.1053(a)(1)(i) requires ladders to have a four to one strength capacity (ladders meeting ANSI specifications are deemed to meet this requirement). However, once a ladder has been designed and is in use, it is difficult to assess its strength capacity as loading the ladder to four times its rated capacity could permanently damage the ladder and render it useless. Specifying a maximum allowable deflection for a ladder while in use could be an appropriate method of evaluating a ladder's capacity. Public comment is requested on whether or not OSHA should specify a maximum allowable deflection for ladders, and if so, how much should be allowed, and how should it be measured (i.e., horizontally with end points supported and the working load applied in midspan)?

7. Proposed rule § 1926.1053(a)(3) specifies minimum and maximum vertical spacing between ladder rungs, steps, and cleats. Proposed rule § 1926.1053(a)(4) specifies minimum widths for rungs, steps, and cleats. These limits are based on the general limits set forth in the ANSI standards for ladders (Exs. 11–14, 17). However, the proposed limits reflect OSHA's attempt to consolidate the wide range of ANSI's limits, and consequently, do not mirror the existing ANSI provisions exactly.

Therefore, public comment is requested on the following points:

(a) Are the proposed limits appropriate, or should the more specific ANSI limits be adopted, or should other less specific limits be adopted? Proponents for using the more specific ANSI limits should state why the various limits are required for each type of ladder. Proponents for using less specific limits should state where the limits are from and why the proposed limits are not appropriate.

(b) If the proposed limits are appropriate, should they be consolidated further so that there is only one set of rules for vertical spacing, say 6 to 12 inches, and one minimum width limit, say 11½ inches?

8. Proposed rule § 1926.1060(a)(2) would require training and retraining as necessary for all employees using stairways and ladders. Public comment is requested on whether a more specific requirement or a less specific requirement such as that found in § 1926.21, would be appropriate. OSHA intends to include in the final rule only those training requirements for which a significant reduction in the risk of incurring injuries or fatalities would be supported in the final record.

Public comment is also requested on what training programs are currently available, who is providing them, and their cost. To the extent possible, examples of both adequate and inadequate training programs should be provided, with examples of how inadequate training may have contributed to unsafe conditions.

Companies, unions, trade associations, and other organizations conducting training programs also are encouraged to submit data concerning the safety records of employees who have undergone training. For example, have companies which have instituted training programs experienced a decrease in accidents compared to the situation existing before training was started.

Information concerning the costs of training and how such costs may be offset by more efficient and/or safe operations is also requested. Although OSHA believes safety training is necessary and beneficial, comments have been received that raise the following concerns:

What level of specificity should OSHA require in a training program? What are the necessary elements of a training program? Can the more general training requirements contained in § 1926.21 be effective in providing employees with adequate training or are the more specific requirements in this proposal necessary?

Do employers or employees believe that training is too costly for the benefits it yields? If OSHA should not require training at all, is there a basis for predicting if training efforts will decrease, increase, or stay at present levels? Would employers, employees, or other interested parties support the omission of the training requirement proposed for this subpart? Do data, eyewitness, and anecdotal evidence exist which may constitute support for OSHA's not requiring training?

Comments are also requested on whether or not training should be required to be provided in specific sessions devoted to an overall view of safety issues likely to be encountered, or are on-the-job sessions, limited to isolated safety concerns as they are encountered, sufficient to insure safety?

In addition, OSHA requests comments on whether compliance with these proposed training requirements could be practicably accomplished without keeping records. Do these proposed training requirements, as written, impose an implicit recordkeeping burden on employers? Data on the cost and time necessary for keeping training records, if any, are requested.

9. In some of the existing provisions and in some of the proposed provisions, OSHA uses specific numerical limits to define and clarify the duties set forth. For example, see Issue Number 7 above addressing ladder rung spacing, and see E § 1926.501(j) and proposed provision § 1926.1052(a)(2) which address stairway slope. These and other limits are based on existing laws and consensus standards, and are used in lieu of more performance-oriented language such as "provide adequate rung spacing," or "install stairways at such angles that tripping is minimized," or language which requires a numerical limit but then allows other configurations which give "equivalent" protection. OSHA believes that although such performance-oriented language would be less restrictive on employers, and thus give them more options when abating a hazard, it does not always tell the employer exactly what is required (i.e., how to do something "right"). On the other hand, requiring specific numerical limits in the rule and allowing the employer to use other limits which the employer can show will provide "equivalent" protection may respond to both these concerns. OSHA believes that the use of specific limits in certain provisions (such as those listed above, and those for stairrail, handrail heights, and similar requirements) provides the required notice to employers as to how they can comply with a provision compared to how OSHA intends to

enforce the provision. OSHA believes that such notice serves to inform employees and employers about the proper way to do things; promotes consistency in hazard abatement at all worksites; and also minimizes legal disputes over the intent of a requirement. On the other hand, specification language can increase costs without increasing safety, discourage technical innovation, prevent the use of safe alternatives, and fail to anticipate the varying needs and situations in the numerous workplaces covered by the standard.

Public comment is requested on whether or not OSHA's use of specification language is appropriate, or if it should be moved to a non-mandatory appendix which could provide guidance to employers. If not, how should the provisions be written to provide the desired flexibility and the required fair notice? If the continued use of such limits is appropriate, are the proposed limits sufficient to abate the hazards? Comments should include appropriate cost and injury data.

10. Existing rule E § 1926.501(f) and proposed rule § 1926.1052(b)(1) require metal pan-type stairways to be temporarily filled with wood or other material until the concrete treads are placed. Proposed rule § 1926.1053(b)(2) addresses a similar concern for adequate footing on skeleton metal stairs, and would prohibit the use of such stairs until either temporary or permanent treads and landings are installed. OSHA solicits comments and suggestions regarding the adequacy or need for these provisions. Comments should include appropriate cost and injury data.

11. Existing rule E § 1926.500(e)(1) and proposed rule § 1926.1052(c)(1) require stairways having four or more risers to be equipped with stairrail and handrail systems. Comments have been received which suggest that "four risers" is not the appropriate lower limit. Public comment is requested on whether or not another limit is appropriate. Comments should include appropriate cost and injury data.

12. Paragraph § 1926.1053(a)(24)(iii) would limit the descending velocity of employees using ladder safety devices to seven feet per second or less. Public comment is requested on whether or not some other limit would be appropriate, such as those recommended by the National Bureau of Standards study (Ex. 18). Proponents for limits other than the one proposed should discuss why the proposed limit is not appropriate.

#### IV. Preliminary Regulatory Impact Assessment and Regulatory Flexibility Analysis

##### *Introduction and Summary*

In accordance with Executive Order No. 12291 (46 FR 13193), February 17, 1981) OSHA has analyzed the economic impact of this proposed standard. Under the criteria established in E.O. 12291, OSHA has determined that the promulgation of this proposed standard would be a "minor" action because the expected yearly costs of full compliance with the proposed standard would be approximately \$16.95 million in the first year and \$12.543 million each year thereafter. These expected costs of compliance are less than the \$100 million necessary for the proposed standard to be considered a "major" regulatory action.

Proposed Subparts L, M, and X cover surfaces and areas that are currently covered under the existing Subparts L and M. OSHA has reorganized these Subparts in order to construct a more logical ordering to its standards and to facilitate the employer's ability to find the sections appropriate to the employer's concerns. In order to comply with the spirit of E.O. 12291, OSHA has also estimated the costs of compliance with the stairrail provisions to Subpart L and the costs of compliance with the ladder training provisions to Subpart M—the subparts in which the provisions governing these surfaces are currently found. OSHA has determined that the addition of these costs of compliance estimates to those costs of compliance estimates for the provisions in the proposed Subparts L and M would not make either proposed standard a "major" action.

##### *Affected Industries and Population at Risk*

The entire construction industry would be affected by the proposed changes to the existing Subparts L and M in view of the extensive use of ladders and stairways in all sectors of the industry. In terms of the two-digit Standard Industrial Classification (SIC) codes, OSHA determined that the proposal could potentially affect all firms in SICs 15 (Building Construction—General Contractors and Operative Builders), SIC 16 (Construction Other Than Building Construction—General Contractors), and SIC 17 (Construction—Special Trades Contractors). In 1977, there were approximately 456,000 individual contractors affected by Subparts L and M. The majority of business firms classified under SIC 17 are subcontractors to the general

contractors classified under SICs 15 and 16. Rather than classifying these sectors by their two-digit SIC designations, OSHA used the type of finished construction product as the basis for classifying the construction industry into the following four general sectors:

1. Single-family housing,
2. Residential, except single family housing (e.g., hotels, apartments),
3. Nonresidential (e.g., commercial and institutional buildings), and
4. Heavy construction (e.g., bridges, utilities).

OSHA estimated that all of the approximately 4 million construction workers frequently work on ladders and stairways. Although it is quite likely that the amount of ladders and stairway use would differ among different types of construction trades, no data were available to quantify these differences.

##### *Significance of Risk*

OSHA estimated that the percentage of all occupational injuries that are injuries in construction due to falls from ladders and stairways is between 0.29 percent and 0.57 percent, with a mean of 0.43 percent. Applying this range to the 5,956,000 occupational injuries reported in the 1979 Occupational Injuries and Illnesses report (Ex. 16), OSHA estimated that the number of injuries in construction due to falls from ladders and stairways was between 17,280 and 33,960 with a mean of 25,620. Of these injuries, between 7,845 and 15,420 with a mean of 11,635 were lost workday injuries and between 9,435 and 18,540 with a mean of 13,985 were non-lost workday injuries. OSHA also estimated that the number of lost workdays in construction due to falls from ladders and stairways would be between 141,210 and 277,560, with a mean of 209,385.

In addition, OSHA determined that there would be between 32 and 44 fatalities yearly in construction associated with falls from ladders and stairways.

Consequently, OSHA concluded that the construction injuries and fatalities due to falls from ladders and stairways are significant and merit effort to reduce their numbers.

##### *Feasibility, Benefits, and Costs*

OSHA determined that the proposed revision of Subparts L and M would be technologically feasible because it would permit the use of readily available technology and equipment.

Benefits from the proposal would accrue to those workers who are at risk from current practices involving ladders and stairways in the construction industry. OSHA also determined that

full compliance with the proposed standard would prevent from 21 to 29 fatalities, from 13,055 to 25,610 injuries (from 5,925 to 11,630 of which would have been lost workday injuries and 7,130 to 13,985 would have been non-lost workday injuries), and from 106,650 to 209,340 lost workdays. OSHA also determined that full compliance with the existing standard would prevent from 18 to 25 fatalities, from 12,350 to 24,290 injuries, (from 5,605 to 11,030 of which would have been lost workday injuries and from 6,745 to 13,260 would have been non-lost workday injuries), and from 100,890 to 198,540 lost workdays. Under conditions of full compliance, therefore, the proposed standard would be more protective than the existing standard as from two to four more fatalities would be prevented, from 705 to 1,325 more injuries would be prevented (including from 320 to 600 lost workday injuries and from 385 to 725 non-lost workday injuries), and from 5,760 to 10,800 fewer workdays would be lost.

OSHA does not endorse any particular estimate for the value of an employee's life. For illustrative purposes, however, OSHA used two methods to estimate the monetary value of the benefits that would result from implementation of the standard. The first method, known as the "human capital" approach, estimates directly the foregone earnings and medical costs associated with an occupational injury or death. Lost production and medical costs to society, however, are the minimum benefits resulting from the prevention of an occupational injury. The other method of estimating benefits is based on the willingness-to-pay concept. Willingness-to-pay is the theoretical amount that the beneficiaries of a program would be willing to pay in order to obtain the benefits of the program or, in an occupational safety context, what a group of workers would pay to reduce the probability of a death or injury. Willingness-to-pay is therefore a more accurate indicator of the true social benefits of preventing injuries to workers.

Using the "human capital" approach, OSHA determined that the annual monetizable benefits would be from \$4.139 million to \$7.416 million greater under full compliance with the proposed standard than under full compliance with the existing standard. In present value terms and using a 10-percent discount rate, these potential increases in monetizable benefits would be between \$29.718 million and \$53.247 million over a 10-year period.

On the basis of the willingness-to-pay concept, OSHA determined that using \$3.5 million as the value for a prevented fatality, the annual monetizable benefits would be from \$18.444 million to \$32.232 million greater under full compliance with the proposed standard than under full compliance with the existing standard. In present value terms, these potential increases in monetizable benefits would be between \$132.428 million and \$213.426 million over a 10-year period.

Using the baseline of existing industry practice, OSHA estimated the costs of full compliance with the proposed standard to be \$16.950 million in the first year and the annualized costs to be \$12.543 million. The present value of these costs over the next 10 years would be \$100.110 million. OSHA also estimated that the first year and annual costs of full compliance with the existing standard to be \$4.104 million. The present value of these costs over the next 10 years would be \$31.314 million.

Thus, OSHA determined that the first-year cost increases in going from full compliance with the existing Subparts L and M to the revised Subpart X would amount to \$12.846 million of which \$11.340 million would be attributable to the training requirement. The annualized cost increases would be \$8.439 million. The present value of these additional costs over the next 10 years would be \$68.796 million.

Consequently, OSHA concluded that full compliance with the proposed Subpart X would provide a safer environment than would full compliance with the existing Subparts L and M and that their benefits would be greater than the costs of compliance.

#### *Costs of Compliance for Other Proposed OSHA Construction Safety Standards*

OSHA considered the economic impact on the construction industry of this proposed revision and of the seven other construction standards that have been recently revised and promulgated or that are in the proposed or final rulemaking stage. Using the baseline of current industry practices, OSHA estimated that the annual total costs of these standards would be about \$3.4 million for Underground Construction (Subpart S), \$5.8 million for Crane-or Derrick-Suspended Personnel Platforms (Subpart N), \$28.7 million for Concrete and Masonry Construction (Subpart Q), \$7.6 million for Scaffolds (Subpart L), \$48.0 million for Electrical Construction (Subpart K), \$65.8 million for Fall Protection (Subpart M), and no costs for Trenching (Subpart P). Using the baseline of full compliance with existing

standards, OSHA estimated that the incremental costs of these standards would be about \$2.7 million for Underground Construction, \$2.2 million for Crane- or Derrick-Suspended Personnel Platforms, and \$17.5 million for Concrete and Masonry Construction. In addition, a cost savings of \$30.6 million for Electrical Construction, \$7.6 million for Scaffolds, \$27.5 million for Fall Protection, and between \$11.7 million and \$42.8 million for Trenching is estimated for those revisions. Thus, the net impact of these actions combined with this action would be increased annualized costs of \$171.8 million when using a baseline of current industry practice and an annual cost savings between \$46.6 million and \$77.7 million when using a baseline of full compliance with the existing standards.

#### *Regulatory Flexibility Certification*

Pursuant to the Regulatory Flexibility Act (Pub. L. 96-353, 84 Stat. 1164 [5 U.S.C 60 et seq.]), the Assistant Secretary has made a preliminary assessment of the impact of the proposed standard and has concluded that it would not have a significant impact upon a substantial number of small entities. OSHA invites public comment concerning this preliminary conclusion.

The important criterion that governs a Regulatory Flexibility Analysis is whether the proposed standard would impose significant costs upon small entities. "Significance" is determined by the impact upon profits, market share, and on the entity's financial viability. In particular, the proposed standard's effect upon small entities relative to its effect upon large entities needs to be specifically evaluated. That is, OSHA must determine whether the proposal would have a relatively greater negative effect on small entities than upon large entities, thereby putting small entities at a competitive disadvantage, and if so, whether there are ways to minimize any differentially adverse effects without increasing worker risk.

If the costs of compliance for small firms are relatively minor and are proportional to the size of the firm, then there is no significant differential effect. In those cases involving larger absolute costs, small firms may have greater difficulty in obtaining financing, and in those cases involving economies of scale in compliance, the burden on small firms will be greater than the burden on large firms. The proposed Subpart X, however, requires minimal capital expenditures. The costs of compliance primarily depend upon the amount of ladder use and stairway footage, which typically depend upon the scale of

operation of the entity. In addition, these costs would be a minimal component of the overall costs of the facilities. As a result, small entities would not be put at a competitive disadvantage due to these compliance costs. Thus, OSHA concluded that this proposed standard would not have a significant adverse impact upon a substantial number of small entities.

The assessment is available for inspection and copying at the OSHA Technical Data Center, Room N-3670, 200 Constitution Avenue, NW., Washington, DC 20210. OSHA invites comments concerning the conclusions reached in the Regulatory Assessments.

#### **V. Environmental Assessment**

##### *Finding of No Significant Impact*

This proposed rule and its major alternatives have been reviewed in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.), the Guidelines of the Council on Environmental Quality (CEQ) (40 CFR Part 1500), and OSHA's DOL NEPA Procedures (29 CFR Part 11). As a result of this review, the Assistant Secretary for OSHA has determined that the proposed rule will have no significant environmental impact.

The proposed revisions to 29 CFR 1926.1050-1060, Subpart X—Stairways and Ladders, focus on the reduction of accidents or injuries by means of work practices and procedures, proper use and handling of equipment, and training, as well as on changes in language, definition, and format of the standard. These revisions do not impact on air, water, or soil quality, plant or animal life, the use of land, or other aspects of the environment. As such, these revisions are, therefore, categorized as excluded actions according to Subpart B, Section 11.10, of the DOL NEPA regulations.

#### **VI. References**

1. Advisory Committee on Construction Safety and Health, *Transcripts of meetings held on November 29-30, 1977; January 10, 1978; February 14, 1978; December 5, 1978; December 16, 1978; June 29-30, 1982.*
2. U.S. Department of Labor, Occupational Safety and Health Administration, *Preliminary Regulatory Impact and Regulatory Flexibility Assessment of Subpart X—Stairways and Ladders*, Office of Regulatory Analysis, March 1984.
3. Ayoub and Bakken, *An Ergonomic Analysis of Selected Sections in Subpart D, Walking/Working Surfaces*, Texas Tech University Institute for Biotechnology, Lubbock, Texas, August 1978.
4. U.S. Department of Labor, Occupational Safety and Health Administration, *Occupational Fatalities Related to Ladders*

as Found in Reports of OSHA Fatality/Catastrophe Investigations, November 1979.

5. U.S. Department of Labor, Bureau of Labor Statistics, untitled report on ladder accident survey, unpublished.

6. Chaffin et al., *An Ergonomic Basis for Recommendations Pertaining to Specific Sections of OSHA Standard, 29 CFR Part 1910, Subpart D—Walking and Working Surfaces*, University of Michigan, Department of Industrial and Operations Engineering, College of Engineering, Ann Arbor, Michigan, 1978.

7. American National Standards Institute, A12.1-1973—*Safety Requirements for Floor and wall Openings, Railings, and Toeboards*, New York, New York.

8. American National Standards Institute, A14.1-1968 *Safety Code for Portable Wood Ladders*, New York, New York.

9. American National Standards Institute, A14.2-1956—*Safety Code for Portable Metal Ladders*, New York, New York.

10. American National Standards Institute, A14.3-1956—*Safety Code for Fixed Ladders*, New York, New York.

11. American National Standards Institute, A14.1-1982—*American National Standard for Ladders—Portable Wood—Safety Requirements*, New York, New York.

12. American National Standards Institute, A14.2-1982—*American National Standard for Ladders—Portable Metal Safety Requirements*, New York, New York.

13. American National Standards Institute, A14.3-1984—*American National Standard for Ladders—Fixed—Safety Requirements*, New York, New York.

14. American National Standards Institute, A14.4-1979—*Safety Requirements for Job-Made Ladders*, New York, New York.

15. U.S. Department of Labor, Bureau of Labor Statistics, Office of Occupational Safety and Health Statistics, unpublished data from the Supplementary Data System, April 1982.

16. U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Injuries and Illnesses in 1979: Summary*, April 1981.

17. American National Standards Institute, A14.5-1982—*American National Standard for Ladders—Portable Reinforced Plastic—Safety Requirements*, New York, New York.

18. National Bureau of Standards (NBS), NBSIR 76-1146, *A Study of Personal Fall-Safety Equipment*, Washington, D.C.: NBS, June 1977.

19. Chaffin, Don B. and Terrence J. Stobbe, *Ergonomic Considerations Related to Selected Fall Prevention Aspects of Scaffolds and Ladders as Presented in OSHA Standard 29 CFR 1910, Subpart D*. The University of Michigan, Ann Arbor, Michigan, September 1973.

## VII. Recordkeeping

This proposal contains no recordkeeping requirements. However, public comment is requested in the Specific Issues section of this preamble on whether the proposed training requirements impose an implicit recordkeeping requirement on employers.

## VIII. Public Participation

Interested persons are invited to submit written data, views, and arguments with respect to this proposal. The comments must be postmarked by February 23, 1987, and submitted in quadruplicate to the Docket Officer, Docket No. S-207, U.S. Department of Labor, Occupational Safety and Health Administration, Room N-3670, 200 Constitution Avenue, NW., Washington, DC 20210.

The data, views, and arguments that are submitted will be available for public inspection and copying at the above address. All timely submissions received will be made a part of the record of this proceeding.

Additionally, under section 6(b)(3) of the OSH Act (29 U.S.C. 655), section 107 of the Construction Safety Act (41 U.S.C. 333), and 29 CFR 1911.11, interested persons may file objections to the proposal and request an informal hearing. The objections and hearing requests should be submitted in quadruplicate to the Docket Officer at the address above and must comply with the following conditions:

1. The objections must include the name and address of the objector;
2. The objections must be postmarked by February 23, 1987;
3. The objections must specify with particularity the provisions of the proposed rule to which each objection is taken and must state the grounds therefor;
4. Each objection must be separately stated and numbered; and
5. The objections must be accompanied by a detailed summary for the evidence proposed to be adduced at the requested hearing.

### List of Subjects in 29 CFR Part 1926

Construction safety, Construction industry, Ladders and scaffolds, Occupational safety and health, Protective equipment, Safety.

### X. State Plan Standards

The 25 States and Territories with their own OSHA-approved occupational safety and health plans must adopt a comparable standard within six months of the publication date of the final rule. These States and Territories are: Alaska, Arizona, California, Connecticut (for State and local government employees only), Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, New York (for State and local government employees only), Nevada, New Mexico, North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, Wyoming.

Until such time as a comparable standard is promulgated, Federal OSHA will provide interim enforcement assistance, as appropriate, in these States and Territories.

### Authority:

This document was prepared under the direction of John A. Pendergrass, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210.

Accordingly, pursuant to sections 4, 6(b) and 8(g) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657), section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333), Secretary of Labor's Order No. 9-83 (48 FR 35736), and 29 CFR Part 1911, it is proposed to amend 29 CFR Part 1926 as set forth below.

Signed at Washington, DC, this 17th day of November 1986.

John A. Pendergrass,  
Assistant Secretary of Labor.

## PART 1926—[AMENDED]

Subpart X of Part 1926 would be revised to read as follows:

### Subpart X—Stairways and Ladders

Sec.

1926.1050 Scope, application, and definitions applicable to this subpart.

1926.1051 General requirements.

1926.1052 Stairways.

1926.1053 Ladders.

1926.1054-1926.1059 [Reserved]

1926.1060 Training requirements.

Appendix A to Subpart X—Ladders

**Authority:** Sec. 107, Contract Work Hours and Safety Standards Act (Construction Safety Act) (40 U.S.C. 333); Secs. 4, 6, 8, Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), or 9-83 (49 FR 35736), as applicable; and 29 CFR Part 1911.

### Subpart X—Stairways and Ladders

§ 1926.1050 Scope, application, and definitions applicable to this subpart.

(a) *Scope and application.* This subpart applies to all stairways and ladders used in construction, alteration, repair (including painting and decorating), and demolition workplaces covered under 29 CFR Part 1926, and also set forth, in specified circumstances, when ladders and stairways are required to be provided. Additional requirements for ladders used on or with scaffolds are contained in § 1926.451 (c) and (d).

(b) *Definitions.*

"Cleat" means a ladder crosspiece of rectangular cross section placed on edge

upon which a person may step while ascending or descending a ladder.

"Double cleat ladder" means a ladder similar in construction to a single cleat ladder, but with a center rail to allow simultaneous two-way traffic for employees ascending or descending.

"Equivalent" means alternative designs, materials, or methods which the employer can demonstrate will provide an equal or greater degree of safety for employees than the method or item specified in the standard.

"Failure" means load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.

"Handrail" means a rail to provide employees a handhold for support.

"Lower levels" means those areas to which an employee can fall. Such areas include ground levels, floors, roofs, ramps, runways, excavations, pits, tanks, material, water, equipment, and similar surfaces.

"Maximum intended load" means the total load of all employees, equipment, tools, materials, transmitted loads, and other loads anticipated to be applied to a ladder component at any one time.

"Nosing" means that portion of a tread projecting beyond the face of the riser immediately below.

"Riser height" means the vertical distance from the top of a tread to the top of the next higher tread.

"Single cleat ladder" means a ladder consisting of a pair of siderails, connected together by cleats, rungs, or steps.

"Stairrail system" means a vertical barrier erected along the unprotected sides and edges of a stairway to prevent employees from falling to lower levels. The top surface of a stairrail system may also be a "handrail."

"Tread width" means the horizontal distance from front to back of a tread (including nosing, if any).

"Unprotected sides and edges" means any side or edge (except at entrances to points of access) of a stairway where there is no stairrail system or wall 36 inches (.9 m) or more in height, and any side or edge (except of entrances to points of access) of a stairway landing, or ladder platform where there is no wall or guardrail system 39 inches (1 m) or more in height.

#### § 1926.1051 General requirements.

The following requirements apply as indicated.

(a) A stairway or ladder shall be provided at all personnel points of access where there is a break in elevation, and where there is no ramp, runway, sloped embankment, or personnel hoist provided.

(1) Spiral stairways which will not be a permanent part of a structure after completion of the structure being built are prohibited except where they provide the only practical means of access during construction.

(2) A double-cleated ladder or two or more separate ladders shall be provided when ladders are the only means of access or exit from a working area for 25 or more employees, or when they serve simultaneous two-way traffic.

(b) All fall protection systems and duties required by this Subpart shall be provided, installed, and performed, before employees begin work where they use stairways or ladders.

#### § 1926.1052 Stairways.

(a) *General.* The following requirements apply to all stairways as indicated:

(1) Stairways which will not be a permanent part of the structure being built shall have landings of not less than 30 inches (76 cm) in the direction of travel at every 12 feet (3.7 m) or less of vertical rise.

(2) Stairs shall be installed between 30° and 50° from horizontal.

(3) Riser height and tread width shall be uniform within each flight of stairs, including any foundation structure used as one or more treads of the stairs.

(4) Where doors or gates open directly on a stairway, a platform shall be provided, and the swing of the door shall not reduce the effective width of the platform to less than 20 inches (51 cm).

(5) Metal pan landings shall be secured in place before filling.

(6) All parts of stairways shall be free of hazardous projections, such as protruding nails.

(7) Slippery conditions on stairways shall be eliminated as soon as possible after they occur.

(b) *Temporary service.* The following requirements apply to all stairways as indicated:

(1) Except during stairway construction, foot traffic is prohibited on stairways with pan stairs where the treads and/or landings are to be filled in with concrete or other material at a later date, unless the stairs are temporarily fitted with solid material at least to the top edge of each pan. Such temporary treads and landings shall be replaced when worn below the level of the top edge of the pan.

(2) Except during stairway construction, foot traffic is prohibited on skeleton metal stairs where permanent treads and/or landings are to be installed at a later date, unless the stairs are fitted with secured temporary treads

and landings long enough to cover the entire tread and/or landing area.

(3) Wood treads for temporary service shall be full width.

(c) *Stairrails and handrails.* The following requirements apply to all stairways as indicated, regardless of their height above lower levels:

(1) Stairways having four or more risers shall be equipped with:

(i) At least one handrail, and

(ii) One stairrail system along each unprotected side or edge.

**Note.**—Stairrail systems may also serve as handrails when installed in conformance with paragraph (c)(7) of this section.

(2) Winding and spiral stairways shall be equipped with a handrail offset sufficiently to prevent walking on those portions of the stairways where the tread width is less than six inches (15 cm).

(3) Except when employees are using stairways in or on an existing building or structure which already has stairrails, the height of stairrails shall be not less than 36 inches (91.5 cm) from the upper surface of the stairrail system to the surface of the tread, in line with the face of the riser at forward edge of the tread.

(4) Midrails, screen, mesh, intermediate vertical members, or equivalent intermediate structural members, shall be provided between the toprail of the stairrail system and the stairway steps when there is no wall at least 21 inches (53 cm) high.

(i) Midrails, when used, shall be located at a height midway between the top edge of the stairrail system and the stairway steps.

(ii) Screens or mesh, when used, shall extend from the top rail to the stairway step, and along the entire opening between top rail supports.

(iii) When intermediate vertical members, such as balusters, are used between posts, they shall be not more than 19 inches (48 cm) apart.

(iv) Other structural members shall be installed such that there are no openings in the stairrail system that are more than 19 inches (48 cm) wide.

(5) Handrails and the top rails of stairrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds (890 n) applied within two inches (5 cm) of the top edge, in any downward or outward direction, at any point along the top edge.

(6) The height of handrails shall be not more than 37 inches (94 cm) nor less than 30 inches (76 cm) from the upper surface of the handrail to the surface of the tread, in line with the face of the riser at the forward edge of the tread.

(7) When the top edge of a stairrail system also serves as a handrail, the height of the top edge shall be not more than 37 inches (94 cm) nor less than 36 inches (91.5 cm) from the upper surface of the stairrail system to the surface of the tread, in line with the face of the riser at the forward edge of the tread.

(8) Stairrail systems and handrails shall be so surfaced as to prevent injury to employees from punctures or lacerations, and to prevent snagging of clothing.

(9) Handrails shall provide an adequate handhold for employees grasping them to avoid falling.

(10) The ends of stairrail systems and handrails shall be constructed so as not to constitute a projection hazard.

(11) Handrails shall have a minimum clearance of one and one-half inches (4 cm) between the handrail and walls, stairrail systems, and other objects.

(12) Unprotected sides and edges of stairway landings shall be provided with guardrail systems.

**Note.**—Guardrail system criteria are contained in Subpart M—Fall Protection.

#### § 1926.1053 Ladders.

(a) *General.* The following requirements apply to all ladders as indicated, including job-made ladders.

(1) Ladders shall be capable of supporting the following loads without failure:

(i) Each portable ladder and job-made ladder: At least four times the maximum intended load applied or transmitted to the ladder in a downward vertical direction when the ladder is placed at an angle of 75½ degrees from the horizontal (ladders built in conformance with the applicable provisions of Appendix A will be deemed to meet this requirement);

(ii) Each fixed ladder: At least two loads of 250 pounds (114 kg) each, concentrated between any two consecutive attachments (the number and position of additional concentrated loads of 250 pounds (114 kg) each, determined from anticipated usage of the ladder, shall also be included), plus anticipated loads caused by ice buildup, winds, rigging, and impact loads resulting from the use of ladder safety devices. Each step or rung shall be capable of supporting a single concentrated load of at least 250 pounds (114 kg) applied in the middle of the step or rung (ladders built in conformance with the applicable provisions of Appendix A will be deemed to meet this requirement).

(2) Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced when the ladder is in position for use.

(3)(i) Rungs, cleats, and steps of portable and fixed ladders shall be spaced not less than six inches (15 cm) apart, nor more than 12 inches (31 cm) apart, as measured along the ladder siderails.

(ii) Rungs, cleats, and steps of individual step or rung ladders shall be not less than six inches (15 cm) apart, nor more than 16½ inches (42 cm) apart, as measured between centerlines of the rungs, cleats, and steps.

(4) Rungs, cleats and steps shall have a minimum clear length of 16 inches (41 cm) for individual-rung and fixed ladders, 12 inches (30 cm) for portable metal ladders and reinforced plastic ladders, and 11½ inches (29 cm) for portable wood ladders.

(5) The rungs of individual-rung ladders shall be shaped such that employees' feet cannot slide off the end of the rungs.

(6) The rungs and steps of metal ladders shall be corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize slipping.

(7) Ladders shall not be tied or fastened together to provide longer sections unless they are specifically designed for such use.

(8) A metal spreader or locking device shall be provided on each stepladder to hold the front and back sections in an open position when the ladder is being used.

(9) When splicing is required to obtain a given length of siderail, the resulting siderail must be at least equivalent in strength to a one piece siderail made of the same material.

(10) When two or more separate ladders are used to reach an elevated work area, the ladders shall be offset with a platform or landing between the ladders.

(11) Unprotected sides and edges of platforms and landings shall be provided with guardrail systems.

**Note.**—Guardrail system criteria are contained in Subpart M—Fall Protection.

(12) Platforms and landings shall be provided with falling object protection.

**Note.**—Falling object protection criteria are contained in Subpart M—Fall Protection.

(13) Ladder components shall so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.

(14) Wood ladders shall not be coated with any opaque covering, except for identification or warning labels which may be placed on one face only of a siderail.

(15) The minimum perpendicular clearance between fixed ladder rungs,

cleats, and steps, and any obstruction behind the ladder shall be seven inches (18 cm).

(16) The minimum perpendicular clearance between the center line of fixed ladder rungs, cleats, and steps, and any obstruction on the climbing side of the ladder shall be 30 inches (76 cm), except as provided in paragraph § 1926.1053(a)(17).

(17) When unavoidable obstructions are encountered, the minimum perpendicular clearance between the centerline of fixed ladder rungs, cleats, and steps, and the obstruction on the climbing side of the ladder may be reduced to 24 inches (61 cm) provided that a deflection device is installed to guide employees around the obstruction.

(18) Through fixed ladders at their point of access/egress shall have a step across distance of not less than seven inches (18 cm) nor more than 12 inches (30 cm) as measured from the centerline of the steps or rungs to the nearest edge of the landing area. If the normal step-across distance exceeds 12 inches (30 cm), a landing platform shall be provided to reduce the distance to the specified limit.

(19) Fixed ladders without cages or wells shall have a clear width to the nearest permanent object of at least 15 inches (38 cm) on each side of the centerline of the ladder.

(20) Fixed ladders shall be provided with cages, wells, ladder safety devices, or self-retracting lifelines where the length of climb is less than 24 feet (7.3 m) but the top of the ladder is at a distance greater than 24 feet (7.3 m) above lower levels.

(21) Where the total length of a climb equals or exceeds 24 feet (7.3 m), fixed ladders shall be equipped with one of the following:

(i) Ladder safety devices; or

(ii) Self-retracting lifelines, and rest platforms at intervals not to exceed 150 feet (45.7 m); or

(iii) A cage or well, and multiple ladder sections, each ladder section not to exceed 50 feet (15.2 m) in length. Ladder sections shall be offset from adjacent sections, and landing platforms shall be provided at maximum intervals of 50 feet (15.2 m).

(22) Cages for fixed ladders shall conform to all of the following:

(i) Horizontal bands shall be fastened to the siderails of rail ladders, or directly to the structure, building, or equipment for individual rung ladders;

(ii) Vertical bars shall be on the inside of the horizontal bands and shall be fastened to them;

(iii) Cages shall extend not less than 27 inches (68 cm), or more than 30 inches

(76 cm) from the centerline of the step or rung (excluding the flare at the bottom of the cage), and shall not be less than 27 inches (68 cm) in width;

(iv) The inside of the cage shall be clear of projections;

(v) Horizontal bands shall be spaced not more than four feet (1.2 m) on center vertically;

(vi) Vertical bars shall be spaced at intervals not more than nine and one-half inches (24 cm) on center horizontally;

(vii) The bottom of the cage shall be at a level not less than seven feet (2.1 m) nor more than eight feet (2.4 m) above the point of access to the bottom of the ladder. The bottom of the cage shall be flared not less than four inches (10 cm) all around within the distance between the bottom horizontal band and the next higher band;

(viii) The top of the cage shall be a minimum of 42 inches (1.1 m) above the top of the platform, or the point of access at the top of the ladder, with provision for access to the platform or other point of access.

(23) Wells for fixed ladders shall conform to all of the following:

(i) They shall completely encircle the ladder;

(ii) They shall be free of projections;

(iii) Their inside face on the climbing side of the ladder shall extend not less than 27 inches (68 cm) nor more than 30 inches (76 cm) from the centerline of the step or rung;

(iv) The inside clear width shall be at least 30 inches (76 cm);

(v) The bottom of the wall on the access side shall start at a level not less than seven feet (2.1 m) nor more than eight feet (2.4 m) above the point of access to the bottom of the ladder.

(24) Ladder safety devices, and their support systems, for fixed ladders shall conform to all of the following:

(i) They shall be capable of withstanding without failure a drop test consisting of an 18 inch (41 cm) drop of a 500 pound (226 kg) weight;

(ii) They shall permit the employee using the device to ascend or descend without continually having to hold, push or pull any part of the device, leaving both hands free for climbing;

(iii) They shall be activated within two feet (.61 m) after a fall occurs, and limit the descending velocity of an employee to seven feet/sec (2.1 m/sec) or less;

(iv) The connection between the carrier or lifeline and the point of attachment to the body belt or harness shall not exceed nine inches (23 cm) in length.

(25) Ladder safety devices shall also conform to the following:

(i) Mountings for rigid carriers shall be attached at each end of the carrier, with intermediate mountings, as necessary, spaced along the entire length of the carrier, to provide the strength necessary to stop employees' falls.

(ii) Mountings for flexible carriers shall be attached at each end of the carrier. When the system is exposed to wind, cable guides for flexible carriers shall be installed at a minimum spacing of 25 feet (7.6 m) and maximum spacing of 40 feet (12.2 m) along the entire length of the carrier, to prevent wind damage to the system.

(iii) The design and installation of mountings and cable guides shall not reduce the design strength of the ladder.

(26) The side rails of through or side-step fixed ladders shall extend 42 inches (1.1 m) above the top of the access level or landing platform served by the ladder. For a parapet ladder, the access level shall be the roof if the parapet is cut to permit passage through the parapet; if the parapet is continuous the access level shall be the top of the parapet.

(27) For through fixed ladder extensions, the steps or rungs shall be omitted from the extension and the extension of the siderails shall be flared to provide not less than 24 inches (61 cm) nor more than 30 inches (76 cm) clearance between siderails. Where ladder safety devices are provided, the maximum clearance between siderails of the extensions shall not exceed 36 inches (91 cm).

(28) For side-step fixed ladders, the siderails and the steps or rungs shall be continuous in the extension.

(29) Individual rung ladders, except those used where their access openings are covered with manhole covers or hatches, shall extend 42 inches (1.1 m) above an access level of landing platform either by the continuation of the rung spacings as horizontal grab bars or by providing vertical grab bars that shall have the same lateral spacing as the vertical legs of the rungs.

(b) *Use.* The following requirements apply to the use of all ladders including job-made ladders.

(1) When ladders are used for access to an upper landing surface, the ladder siderails shall extend at least three feet (.9 m) above the upper landing surface to which the ladder is used to gain access; or, when such an extension is not possible because of the ladder's length, then the ladder shall be secured at the top and a grasping device, such as a grabrail, shall be provided to assist employees in mounting and dismounting the ladder.

(2) Ladders shall be maintained free of slipping hazards.

(3) Ladders shall not be loaded beyond their maximum intended load-carrying capacity, nor beyond their rated capacity.

(4) Ladders shall be used only for the purpose for which they were designed.

(5) Non-self-supporting ladders shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one-quarter of the working length of the ladder (the distance along the ladder between the foot and the top support). Wood job-made ladders with spliced siderails shall be used at an angle such that the ratio is one-eighth the working length of the ladder. Fixed ladders shall be used at a pitch no greater than 90 degrees from the horizontal, as measured to the backside of the ladder.

(6) Ladders shall be used only on stable and level surfaces unless secured to prevent accidental displacement.

(7) Ladders shall not be used on slippery surfaces unless secured or provided with slip resistant feet to prevent accidental displacement.

**Note.**—Slip-resistant feet are not intended as a substitute for care in placing, lashing, or holding a ladder that is used upon oily, metal, concrete, or slippery surfaces.

(8) Ladders placed in any location where they can be displaced by other activities or traffic, such as in passageways, doorways, or driveways, shall be secured to prevent accidental displacement, or a barricade shall be used to keep the activities or traffic away from the ladder.

(9) The area around the top and bottom of ladders shall be kept clear.

(10) The top of a non-self-supporting ladder shall be placed with the two rails supported equally unless it is equipped with a single support attachment.

(11) Ladders shall not be moved, shifted, or extended while occupied.

(12) Ladders shall have non-conductive siderails when used where the ladder could contact energized electrical equipment, except as provided in 29 CFR 1926.951(c)(1).

(13) The tops of stepladders shall not be used as steps.

(14) Cross-bracing on stepladders shall not be used for climbing.

(15) Ladders shall be inspected for visible defects prior to the first use of each workshift and after any occurrence which could affect their safe use.

(16) Ladders with structural defects, such as broken or missing rungs, cleats, or steps, broken or split rails, corroded components, or other faulty or defective components, shall be immediately tagged with "Do Not Use" or similar

language, or withdrawn from service until repaired.

(17) Ladder repairs shall restore the ladder to a condition meeting its original design criteria.

**§§ 1926.1054–1926.1059 [Reserved]**

**§ 1926.1060 Training requirements.**

In addition to the requirements of § 1926.21, Safety training and education, the following training requirements apply to this Subpart. However, the provisions of this section may be cited only when a citation is being issued concurrently under the provisions of § 1926.1051, § 1926.1052, or § 1926.1053 of this Subpart:

(a) The employer shall provide a training program for all employees using ladders and stairways. The program shall enable employees to recognize hazards related to ladders and stairways, and shall train the employees in the procedures to be followed in order to minimize these hazards.

(1) The employer shall assure that employees have been trained and instructed in the following areas, as applicable:

(i) The nature of fall hazards in the work area; and

(ii) The correct procedures for erecting, and maintaining, and disassembling the fall protection systems to be used; and

(iii) The proper construction, use, placement and care in handling of all stairways and ladders; and

(iv) The maximum intended load-carrying capacities of ladders used; and

(v) The standards contained in this Subpart.

(2) Training and retraining shall be provided for each employee as necessary.

**Appendix A to Subpart X—Ladders**

This appendix serves as a non-mandatory guideline to assist employers in complying with the requirements of Subpart X. Ladders designed and built in accordance with the provisions of the following guidelines will be considered as acceptable alternative designs that meet the capacity requirements of § 1926.1053(a)(1). Ladders not built in accordance with the following guidelines (e.g., job-built single-cleat wood ladders longer than 30 feet, job-built double-cleat wood ladders longer than 24 feet, etc.), must

be designed in accordance with the capacity requirements of § 1926.1053(a)(1).

Manufactured portable wood ladders made in conformance to the provisions of American National Standards Institute publication A14.1–1982—American National Standard for Ladders—Portable Wood—Safety Requirements.

Manufactured portable metal ladders made in conformance to the provisions of American National Standards Institute publication A14.2–1982—American National Standard for Ladders—Portable Metal—Safety Requirements.

Manufactured fixed ladders made in conformance to the provisions of American National Standards Institute publication A14.3–1984—American National Standard for Ladders—Fixed—Safety Requirements.

Job-made ladders made in conformance to the provisions of American National Standards Institute publication A14.4–1979—Safety Requirements for Job-Made Ladders.

Plastic ladders made in conformance to the provisions of American National Standards Institute publication A14.5–1982—American National Standard for Ladders—Portable Reinforced Plastic—Safety Requirements.

[FR Doc. 86–26228 Filed 11–24–86; 8:45 am]

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**Environmental  
Protection Agency**

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**Tuesday  
November 25, 1986**

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**Part V**

**Environmental  
Protection Agency**

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**40 CFR Part 60**

**Standards of Performance for New  
Stationary Sources: Industrial-  
Commercial-Institutional Steam  
Generating Units and Fossil Fuel-Fired  
Steam Generating Units; Final Rules**

**ENVIRONMENTAL PROTECTION AGENCY****40 CFR Part 60**

[AD-FRL-3074-5]

**Standards of Performance for New Stationary Sources; Industrial-Commercial-Institutional Steam Generating Units****AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Final rule.

**SUMMARY:** Standards of performance limiting emissions of particulate matter and nitrogen oxides (NO<sub>x</sub>) from industrial-commercial-institutional steam generating units were proposed in the Federal Register on June 19, 1984 (49 FR 25102). Today's action promulgates these standards. The standards implement section 111 of the Clean Air Act and are based on the Administrator's determination that industrial-commercial-institutional steam generating units cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare. The intended effect of these standards is require all new, modified, and reconstructed industrial-commercial-institutional steam generating units to reduce emissions of particulate matter and (NO<sub>x</sub>) to the levels achievable by the best demonstrated system of continuous emission reduction, considering costs, nonair quality health and environmental impacts, and energy requirements.

**DATE:** Effective November 25, 1986.

Under Section 307(b)(1) of the Clean Air Act, judicial review of the actions taken by this notice is available *only* by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this rule. Under Section 307(b)(2) of the Clean Air Act, the requirements that are the subject of today's notice may not be challenged later during civil or criminal proceedings to enforce these requirements.

**Incorporation by Reference:** The incorporation by reference of certain publications in these standards is approved by the Director of the Office of the Federal Register as of November 25, 1986.

**ADDRESSES:** Background information documents may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, (919) 541-2777.

Docket number A-79-02 is available for public inspection between 8:00 a.m. and 4:00 p.m. Monday through Friday at

the Central Docket Section (LE-131), West Tower Lobby, Gallery 1, 401 M Street, SW., Washington, DC 20460.

See **"SUPPLEMENTARY INFORMATION"** for further details.

**FOR FURTHER INFORMATION CONTACT:**

Mr. Fred Porter on Mr. Walter Stevenson, Standards Development Branch, Emission Standards and Engineering Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541-5624.

**SUPPLEMENTARY INFORMATION:***Summary of Standards*

Standards of performance for new sources established under Section 111 of the Clean Air Act reflect:

\* \* \* application of the best technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated [Section 111(a)(1)(C)].

For convenience, this will be referred to as "best demonstrated technology."

*Applicability*

These new source performance standards (NSPS) apply to all new, modified, or reconstructed steam generating units with a heat input capacity greater than 29 MW (100 million Btu/hour) for which construction is commenced after June 19, 1984, except for electric utility steam generating units covered by 40 CFR Part 60 Subpart Da. The definition of "steam generating unit" includes all devices that combust fuel and produce steam, hot water, or heat other fluids which are used as heat transfer media. Fuel combustion units which function as process heaters are not covered if their primary purpose is to heat a fluid in order to initiate or promote a chemical reaction in which the fluid itself is a reactant or catalyst.

The owner or operator of any steam generating unit with a heat input capacity for any fuel or fuels greater than 29 MW (100 million Btu/hour) must submit certain information as required by the General Provisions (§ 60.11), including notification of the date of initial unit startup, and must maintain certain fuel use records.

Particulate matter emission limits are established for coal-, wood-, and municipal solid waste-fired steam generating units and for steam generating units which fire fuel mixtures including these fuels. The NO<sub>x</sub> emission limits are established for coal-, oil-, and gas-fired steam generating units and for steam generating units which fire fuel

mixtures including these fuels. Steam generating units that fire fuels other than coal, wood, municipal-type solid waste, oil, or natural gas are not subject to the particulate matter or NO<sub>x</sub> standards, as applicable, unless they fire mixtures containing significant amounts of coal, wood, municipal-type solid waste, oil, or natural gas on an annual basis, as defined in the standards.

The standards being adopted today do not revise the sulfur dioxide (SO<sub>2</sub>) standards for coal- or oil-fired units or the particulate matter standards for oil-fired units under 40 CFR Part 60 Subpart D. Steam generating units having heat input capacities greater than 73 MW (250 million Btu/hour) constructed after August 18, 1971 remain subject to the SO<sub>2</sub> standard for coal- and oil-fired units and the particulate matter standards for oil-fired units under 40 CFR Part 60 Subpart D. When the SO<sub>2</sub> standards for coal- and oil-fired units and the particulate matter standard for oil-fired units proposed on June 19, 1986 under 40 CFR Part 60 Subpart Db are promulgated, all steam generating units larger than 29 MW (100 million Btu/hour) heat input capacity constructed after June 19, 1986 will become subject to the new SO<sub>2</sub> and particulate matter standards, as well as to the applicable particulate matter and NO<sub>x</sub> standards promulgated today. As previously mentioned, all new electric utility steam generating units constructed after September 18, 1978, with heat input capacities greater than 73 MW (250 million Btu/hour) are subject to the particulate matter, NO<sub>x</sub>, and SO<sub>2</sub> standards under Subpart Da of 40 CFR Part 60.

New steam generating units meeting the applicability requirements under this subpart and the applicability requirements under Subpart J (Standards of performance for petroleum refineries, § 60.100) are subject to the NO<sub>x</sub> and particulate matter standards under this subpart and the SO<sub>2</sub> standards under Subpart J (§ 60.104).

New steam generating units meeting the applicability requirements under this subpart and the applicability requirements under Subpart E (Standards of performance for incinerators; § 60.50) are subject to the NO<sub>x</sub> and particulate matter standards under this subpart.

*Particulate Matter Standards*

The particulate matter standards apply to coal-, wood-, and municipal type solid waste-fired steam generating units, as well as to steam generating units firing mixtures which include these fuels. For coal-fired steam generating

units, the promulgated particulate matter emission limit is 22 ng/J (0.05 lb/million Btu) heat input. For steam generating units that fire wood or municipal-type solid waste, the promulgated particulate matter emission limit is 43 ng/J (0.10 lb/million Btu) heat input.

For steam generating units that fire mixtures including coal, wood, or municipal-type solid waste, with or without other fuels, the applicability of the 43 ng/J (0.10 lb/million Btu) heat input or the 22 ng/J (0.05 lb/million Btu) heat input emission limit would be determined based on the amount of coal, wood, or municipal-type solid waste combusted. Steam generating units that combust coal with wood, municipal-type solid waste or other fuels, have an annual capacity factor for wood, municipal-type solid waste or other fuels greater than 10 percent, and have a Federally enforceable permit which specifies that the unit must be operated at an annual capacity factor for wood, municipal-type solid waste, or other fuels (except coal) above 10 percent, are subject to a particulate matter emission limit of 43 ng/J (0.10 lb/million Btu) heat input. If a steam generating unit combusts coal with wood, municipal-type solid waste, or other fuels and has an annual capacity factor for wood, municipal-type solid waste, or other fuels (except coal) of 10 percent or less, or does not have a Federally enforceable permit, a particulate matter emission limit of 22 ng/J (0.05 lb/million Btu) heat input applies.

Coal-, wood-, or municipal solid waste-fired steam generating units in the 29 through 73 MW (100 through 250 million Btu/hour) heat input capacity range constructed between June 19, 1984 and November 25, 1986 that have an annual capacity factor for coal, wood, or municipal-type solid waste or any mixtures of these fuels of 30 percent or less and have a Federally enforceable permit limiting the annual capacity factor for coal, wood, or municipal-type solid waste to 30 percent or less are subject to a particulate matter emission limit of 86 ng/J (0.20 lb/million Btu) heat input.

Wood-fired steam generating units in the 29 MW through 73 MW (100 million Btu/hour through 250 million Btu/hour) heat input capacity size range constructed after November 25, 1986 that have an annual capacity factor of more than 10 percent for wood and less than 30 percent for all fuels, and have obtained a Federally enforceable operating permit limiting the annual capacity factor to these levels are subject to a particulate matter emission

limit of 86 ng/J (0.20 lb/million Btu) heat input. All municipal solid waste-fired steam generating units commencing construction, modification, or reconstruction after November 25, 1986 will be subject to a 43 ng/J (0.10 lb/million Btu) heat input particulate matter standard independent of annual capacity factor. All coal-fired steam generating units commencing construction, modification, or reconstruction after November 25, 1986 will be subject to a 22 ng/J (0.05 lb/million Btu) heat input standard independent of annual capacity factor.

The annual capacity factor for determining the applicable particulate matter standard is calculated by dividing the annual heat input to the steam generating unit from firing coal, wood, municipal-type solid waste, or mixtures of these fuels as specified in the Federally enforceable limitation, by the potential annual heat input to the steam generating unit. The potential annual heat input is defined as the product of the maximum rated continuous heat input capacity (MW or million Btu/hour) multiplied by 8,760 hours per year. The potential annual heat input is a constant for each unit and is not affected by the number of hours the unit is actually operated.

The opacity standard for all steam generating units firing coal, wood, solid waste, or mixtures of these fuels, with or without other fuels, is 20 percent opacity (6-minute average) with one 6-minute excursion per hour up to 27 percent per hour. The opacity standard applies at all times except during periods of startup, shutdown, or malfunction as provided for by the General Provisions [§ 60.11(c)].

Performance tests to determine compliance with the particulate matter emission limits are conducted using Reference Method 5 or 17. It is anticipated that proposed Reference Method 5B (50 FR 21963, May 29, 1985), if promulgated, will be an applicable test method under today's standards. Reference Method 3 would be used for gas analysis and Reference Method 1 for the selection of sampling points. Reference Method 9 (a 6-minute average of 24 observations) would be used to determine compliance with the opacity standard. Continuous opacity monitoring is required for all steam generating units except as provided for by the General Provisions [§ 60.11(b)] and excess emissions (opacity) reports are required to be submitted on a semiannual basis.

#### *NO<sub>x</sub> Standards*

The NO<sub>x</sub> standards being adopted today apply to steam generating units

with a heat input capacity greater than 29 MW (100 million Btu/hour) that fire coal, oil, natural gas, or mixtures of these fuels.

The promulgated NO<sub>x</sub> emission limits for coal-fired steam generating units are 300 ng/J (0.70 lb/million Btu) heat input for pulverized coal-fired steam generating units, 260 ng/J (0.06 lb/million Btu) heat input for spreader stoker coal-fired steam generating units and fluidized bed combustion steam generating units, and 210 ng/J (0.50 lb/million Btu) for mass-feed stoker coal-fired steam generating units and for all coal-derived fuels. Lignite-fired steam generating units are subject to a NO<sub>x</sub> emission limit of 260 ng/J (0.60 lb/million Btu) heat input, except for lignite mined in North Dakota, South Dakota, or Montana that is combusted in a slag tap-type furnace for which the emission limit is 340 ng/J (0.80 lb/million Btu) heat input.

For natural gas and distillate oil-fired steam generating units with maximum design heat release rates of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>) or less, the NO<sub>x</sub> standard is 43 ng/J (0.10 lb/million Btu) heat input. For natural gas-fired and distillate oil-fired steam generating units with maximum design heat release rates greater than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>), the NO<sub>x</sub> standard is 86 ng/J (0.20 lb/million Btu) heat input. For natural gas or distillate oil-fired duct burners used in steam generating units that are components of combined cycle gas turbine systems, NO<sub>x</sub> standards are 86 ng/J (0.20 lb/million Btu) heat input.

Steam generating units firing fuel mixtures that include natural gas or distillate oil with either wood or solid waste and that have an annual capacity factor for natural gas or distillate oil greater than 10 percent are subject to a NO<sub>x</sub> emission limit of 130 ng/J (0.30 lb/million Btu) heat input.

For residual oil-fired steam generating units having maximum design heat release rates of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>) or less, the NO<sub>x</sub> emission limit is 130 ng/J (0.30 lb/million Btu) heat input. For residual oil-fired steam generating units having maximum design heat release rates greater than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>), the NO<sub>x</sub> emission limit is 170 ng/J (0.40 lb/million Btu) heat input. For residual oil-fired duct burners, NO<sub>x</sub> standards are 170 ng/J (0.40 lb/million Btu) heat input.

The NO<sub>x</sub> emission limits for steam generating units firing mixtures of coal, oil, or natural gas would be determined by proration of the NO<sub>x</sub> standards based on the respective amounts of each fuel fired. For steam generating units

that fire coal, oil, or natural gas in a mixture containing other fuels (except for mixtures of natural gas or distillate oil with wood or solid waste) and for which the annual capacity factor based on the total heat input from coal, oil, and natural gas is greater than 10 percent, the steam generating unit would be required to meet the NO<sub>x</sub> standard for coal, oil, natural gas, or a mixture of these fuels, as applicable.

Steam generating units that fire mixtures of natural gas or distillate oil with gaseous byproduct/waste fuels from chemical plants or petroleum refineries are subject to the NO<sub>x</sub> emission limit applicable to natural gas or distillate oil. Similarly, units that fire mixtures of residual oil and liquid byproduct/waste fuels from chemical plants or petroleum refineries are subject to the NO<sub>x</sub> emission limit applicable to residual oil.

Owners or operators of steam generating units covered by these standards may apply in one of two ways for facility-specific NO<sub>x</sub> emission limits if they are burning byproducts/wastes. If non-toxic wastes are fired, facility-specific NO<sub>x</sub> emission limits will be proposed and promulgated in the **Federal Register** provided the owner or operator can demonstrate to the Administrator's satisfaction that the facility has installed best demonstrated NO<sub>x</sub> control technology, but cannot achieve the applicable NO<sub>x</sub> standard due to characteristics of the byproduct/waste, such as high nitrogen content, high heat content, or other characteristics affecting NO<sub>x</sub> emissions. Such a demonstration may include test data that showed the facility complied with the NO<sub>x</sub> standard when natural gas or oil was fired, as appropriate, but is unable to comply with the applicable NO<sub>x</sub> standard when gaseous or liquid byproduct/wastes are fired. For units firing toxic waste a full waiver of the NO<sub>x</sub> standard will be issued provided the demonstration shows compliance with all applicable federally enforceable destruction efficiency requirements. It is suggested that the demonstration test be incorporated into the initial 30-day compliance test, which is required to be completed within 180 days of initial unit startup. Although the NO<sub>x</sub> standards promulgated today may be delegated to State or local agencies for enforcement, these provisions for facility-specific NO<sub>x</sub> emission limits will not be delegated.

All steam generating units subject to the NO<sub>x</sub> standards are required to perform an initial 30-day compliance test within 180 days of initial unit startup. After the initial compliance test or 180 days following initial unit startup,

whichever comes first, compliance with the standards is determined in one of two ways, depending on the size of the unit and the fuel fired. First: (1) All steam generating units larger than 29 MW (100 million Btu/hour) heat input capacity that fire coal or high nitrogen content residual oil (greater than 0.3 weight percent nitrogen), and (2) all steam generating units larger than 73 MW (250 million Btu/hour) heat input capacity that fire natural gas, distillate oil, or low nitrogen content residual oil (less than 0.3 weight percent) are required to install and operate a continuous emission monitoring system (CEMS) to measure NO<sub>x</sub> emissions. The only exception to this is gas turbine combined cycle units equipped with duct burners where CEMS are not required.

The NO<sub>x</sub> emission data will be used to calculate NO<sub>x</sub> emissions on a 30-day rolling average basis. These data will be used to determine compliance with the NO<sub>x</sub> standards; therefore, the quality assurance procedures for CEMS set forth under 40 CFR Part 60 Appendix F, Procedure 1, (49 FR 9676, March 14, 1984) when adopted will apply. NO<sub>x</sub> compliance reports are required to be submitted on a quarterly basis.

Second, for steam generating units having heat input capacities between 29 MW and 73 MW (100 million Btu/hour and 250 million Btu/hour), and firing natural gas, distillate oil, or low nitrogen content residual oil (less than 0.3 weight percent) the owner or operator has an option of using either CEMS or monitoring steam generating unit operating conditions. In these applications, the CEMS data will not be used to determine direct compliance with the NO<sub>x</sub> standards. The quality assurance procedures under 40 CFR Part 60 Appendix F would not apply. The CEMS data will be used to prepare excess emission reports which will be used primarily to determine if another 30-day compliance test is necessary. NO<sub>x</sub> excess emission reports are required to be submitted on a semiannual basis.

As an alternative to CEMS for these units, the owner or operator of the facility may apply to the Administrator for approval to monitor steam generating unit operating conditions indicative of NO<sub>x</sub> emission rates. An owner or operator applying for approval to monitor operating conditions shall submit a monitoring plan to the Administrator for review. Manufacturers of steam generating units may develop monitoring plans and provide them to owners or operators of steam generating units. The monitoring plans, with

supporting operating and emission data, could subsequently be submitted by the owner or operator of the affected facility.

The plan submitted for review must outline how the conditions to be monitored can be used to predict NO<sub>x</sub> emission rates. If approved by the Administrator, the results from monitoring operating conditions shall be recorded, used to predict NO<sub>x</sub> emission rates, and the NO<sub>x</sub> emission data submitted in semiannual excess emission reports. Additionally, a quarterly excess emissions report will be required to be submitted for any quarter that excess emissions occur. The excess emission reports will then be used primarily to determine if another 30-day compliance test should be conducted. It is suggested that the monitoring plan be developed during the initial 30-day compliance test which is required for all units. The standards being adopted today require that the monitoring plan be submitted within 360 days of initial unit startup.

Owners or operators of all steam generating units with heat input capacities greater than 29 MW (100 million Btu/hour) shall maintain records of annual fuel consumption by fuel type. For facilities in the 29 to 73 MW (100 to 250 million Btu/hour) heat input capacity size range and combusting residual oil containing less than 0.30 weight percent nitrogen, fuel records must be maintained that indicate the nitrogen content of the residual oil fired. If fuel nitrogen content is not reported it will be assumed to be higher nitrogen content residual oil (equal to or greater than 0.30 percent nitrogen) and CEMS will be required, Appendix F will be applicable and the emissions data used to determine compliance on a continuous basis.

Fuel specification data from the oil supplier may be used to determine fuel nitrogen content in place of on-site testing. If liquid fuel blends are fired, specifications may be prorated based on the ratio of the liquid fuels of different nitrogen content in the fuel blend. In all cases, fuel records shall be maintained for 2 years. All facilities subject to the NO<sub>x</sub> standards operating a CEMS or measuring unit operating conditions shall maintain records for 2 years.

The owners or operators of all steam generating units having heat input capacities greater than 29 MW (100 million Btu/hour) heat input must submit certain reports. The regulation requires notification of the intent to initiate operation of a new, modified, or reconstructed steam generating unit. Additionally, those facilities subject to

the particulate matter or NO<sub>x</sub> standards must submit results of the initial performance test and performance evaluation of the CEMS within 180 days of initial startup. For those facilities monitoring opacity, monitoring NO<sub>x</sub> by CEMS, or monitoring NO<sub>x</sub> by operating conditions, emissions reports must be submitted even if the standards were not exceeded during the reporting period. Also, units equipped with CEMS that are used for compliance determinations will be subject to the quality assurance requirements under 40 CFR Part 60, Appendix F, Procedure 1 when promulgated and shall submit CEMS quarterly quality assurance reports.

#### Environmental Impacts

The environmental impacts of the standards being adopted today are expressed as incremental differences in emissions between the current emission regulations (referred to as the baseline) and these standards. These impacts are based on the assumption that energy prices experienced in 1984/1985 will continue with only moderate price increases in future years. A consequence of this fuel price assumption is that a large proportion of the new industrial-commercial-institutional steam generating unit population (greater than 50 percent) will continue to fire natural gas or oil, and that coal-fired units are expected to be limited to principally base load units in the larger size range.

The new source performance standards for particulate matter and NO<sub>x</sub> emission controls being adopted today will result in a range of emission reductions depending on the mix of fuels assumed to be fired. New source performance standards for SO<sub>2</sub> were recently proposed and affect the mix of fuel fired. The SO<sub>2</sub> standards, as proposed, are expected to increase the market share for natural gas-fired steam generating units from approximately 30 percent to about 55 percent. Because natural gas-fired steam generating units have lower particulate matter and NO<sub>x</sub> emissions than either coal- or oil-fired units, decreased particulate matter and NO<sub>x</sub> emissions result with the SO<sub>2</sub> standards in place.

A range of environmental impacts is presented. The lower estimate is based on the incremental change between the baseline regulations (State implementation plans and Subpart D new source performance standards) and the particulate matter and NO<sub>x</sub> standards being adopted today. The upper estimate is based on the incremental change between the baseline regulations and the particulate

matter and NO<sub>x</sub> standards combined with the recently proposed new source performance standards for SO<sub>2</sub> (51 FR 22384, June 19, 1986), which would also apply to this category of steam generating units.

The primary environmental impacts resulting from the particulate matter and NO<sub>x</sub> standards being adopted today are reductions in the quantity of particulate matter and NO<sub>x</sub> emitted from steam generating units subject to these standards. It is estimated that between 1985 and 1990 approximately 725 new steam generating units will be constructed that would be subject to the standards. Baseline emissions from these new steam generating units will be 49,000 Mg (54,000 tons) of particulate matter per year and about 77,000 Mg (85,000 tons) of NO<sub>x</sub> per year in 1990. The standards being adopted today are projected to reduce baseline particulate matter emissions by 16,000 to 22,000 Mg (18,000 to 24,000 tons) per year and NO<sub>x</sub> emissions by 21,000 to 24,000 Mg (23,000 to 26,000 tons) per year in 1990. This represents about a 35 to 45 percent reduction in the growth of particulate matter emissions and about a 25 to 30 percent reduction in the growth of NO<sub>x</sub> emissions from new steam generating units subject to these standards.

The solid and liquid waste impacts associated with the particulate matter and NO<sub>x</sub> standards are minimal. Flyash disposal levels associated with existing State regulations and Subpart D new source performance standards are only incrementally increased as a result of the particulate matter standards adopted today. Further, the change in fuel use patterns resulting from the standards can actually reduce flyash levels where increased gas use displaces coal. Overall, the standards are projected to result in solid waste impacts ranging from a net reduction of about 9,000 Mg/year (10,000 tons/year) to a net increase of 13,000 Mg/year (14,000 tons/year). The liquid waste impacts associated with the particulate matter standards are minimal. Liquid waste production levels are projected to increase over baseline by about 19,000 m<sup>3</sup> (680,000 ft<sup>3</sup>) per year, or approximately 1.5 percent.

#### Energy Impacts

The energy impacts of the standards have been analyzed in terms of the impact on demand for natural gas, oil, and coal and in terms of overall energy requirements of steam generating units covered by the standards. Steam generating units that would be affected by the standards are projected to demand approximately 525 million GJ (498 trillion Btu) of fossil fuels in 1990. It

is projected that natural gas will comprise about 30 to 50 percent of the fuel used in steam generating units and residual oil will provide a substantial portion of the remainder. The particulate matter standards would increase the national electric energy requirements by about 146 GWh/year in 1990.

#### Cost Impacts

In analyzing the national cost impacts of the standards, only the costs resulting from the implementation of the particulate matter and NO<sub>x</sub> standards have been considered in this rulemaking. On a national basis, the particulate matter and NO<sub>x</sub> standards would increase the capital cost for new steam generating units by approximately 1 percent. The nationwide increase in annualized costs for producing steam from new steam generating units subject to the standards would be approximately \$36 million in 1990. This represents an increase of less than 1 percent over baseline annualized costs for producing steam from new steam generating units. The magnitude of these cost impacts remains the same regardless of the SO<sub>2</sub> standards.

The national incremental cost effectiveness of the particulate matter standards over existing regulations is projected to range from approximately \$1,025/Mg to \$1,400/Mg (\$930/ton to \$1,270/ton) of particulate matter removed. The national incremental cost effectiveness of the NO<sub>x</sub> standards over existing regulations is projected to range from \$370/Mg to \$640/Mg (\$340/ton to \$580/ton) of NO<sub>x</sub> removed.

These impacts are presented as a range of values, showing the incremental cost effectiveness between the baseline and the particulate matter and NO<sub>x</sub> standards adopted today, and between the baseline and the combined particulate matter, NO<sub>x</sub>, and proposed SO<sub>2</sub> standards. Because of the fuel shifts which are projected to occur under the proposed SO<sub>2</sub> standards, different cost effectiveness levels result in each case.

#### Economic Impacts

The economic impacts of the standards have also been evaluated in terms of the nationwide capital expenditures for pollution control equipment, the increase in the annualized cost of producing steam, the resulting rise in the price of products produced by operators of steam generating units, and the impact on the availability of capital to the firms purchasing steam generating units.

In analyzing potential product price, profitability, and capital availability impacts associated with the standards,

industries likely to experience the severest impacts and the conditions which would produce the most adverse impacts were chosen for examination. The standards being adopted today were found to have no significant adverse economic impacts on any of these industries.

On the national level, assuming increases in annualized costs are passed forward to product consumers and not absorbed by industry, the standards are projected to result in a projected average increase of less than a 0.05 percentage point average increase in the product price for any major steam user group examined, with smaller increases for industries using less steam. For those selected industries which have been judged likely to be most affected by the standards, product prices could increase by 0.05 to 0.40 percent. This projected product price increase is based on a "worst case" analysis assuming full cost pass-through. If no cost pass-through and full cost absorption by industry are assumed, no product cost increase would result, and the return on assets would decrease by 0.01 to 0.60 percentage point under the standards. Impacts on any given plant would likely be much less than these worst case examples under either assumption.

#### Public Participation

Prior to proposal, interested parties were advised by public notice in the *Federal Register* (47 FR 19786, May 7, 1982) of a meeting of the National Air Pollution Control Techniques Advisory Committee (NAPCTAC) to discuss the standards recommended for proposal. This meeting was held on June 16 and June 17, 1982. The meeting was open to the public and each attendee was given an opportunity to comment on the standards recommended for proposal.

Subsequently, the standards were proposed on June 19, 1984 (49 FR 25102). The preamble to the proposed standards discussed the availability of the Background Information Documents (BID) which describe in detail the regulatory alternatives considered and the impacts of those alternatives. The BID's include EPA-450/3-82-006a "Fossil Fuel-Fired Industrial Boilers—Background Information for Proposed Standards Volume 1: Chapters 1-9," EPA-450/3-82-006b "Fossil Fuel-Fired Industrial Boilers—Background Information for Proposed Standards Volume 2: Appendices," and EPA-450/3-82-007 "Nonfossil Fuel-Fired Industrial Boilers—Background Information." Cost reports include EPA-450/3-82-021 "Costs of Sulfur Dioxide, Particulate Matter, and Nitrogen Oxide Controls on Fossil Fuel-Fired Industrial Boilers," and

EPA-450/3-83-004 "Costs of Particulate Matter Controls for Nonfossil Fuel-Fired Boilers." Comments on the proposal were solicited and copies of the BID and cost reports were made available to interested parties.

To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standards, a public hearing was held on August 15, 1984 at Research Triangle Park, North Carolina. The hearing was open to the public and each attendee was given an opportunity to comment on the proposed standards.

The comment period was from proposal date (June 19, 1984) to October 1, 1984. The written comments and oral statements have been carefully considered and, where determined to be appropriate by the Administrator, changes have been made in the proposed standards.

#### Comments On Proposal

Discussed below are the more significant comments made by commenters.

#### Priority List

Two commenters requested that steam generating units with heat input capacities of less than 73 MW (250 million Btu/hour) be delisted from the category of "Fossil Fuel-Fired Steam Generators: Industrial Boilers." The commenters indicate the reasons for their request are (1) that steam generating units under 73 MW (250 million Btu/hour) heat input capacity are not significant air pollution sources; and (2) that these units are already adequately regulated by State regulations and other requirements of the Clean Air Act.

On August 21, 1979, a priority list for development of additional NSPS was published in accordance with sections 111(b)(1)(A) and 111(f)(1) of the Clean Air Act. This list identified 59 major stationary source categories that were not covered by NSPS, but that were judged to be "significant contributors" i.e., to contribute significantly to air pollution that could reasonably be expected to endanger public health or welfare. Fossil fuel-fired industrial steam generating units ranked eleventh on this priority list of sources for which NSPS would be established in the future.

Of the 10 sources ranked above fossil fuel-fired industrial steam generating units on the priority list, nine were major sources of volatile organic compound (VOC) emissions. Because there are many areas that have not attained the national ambient air quality standard for ozone, major sources of VOC emissions were accorded a very

high priority. Of the remaining source categories, fuel-fired industrial steam generating units were the highest ranked source of particulate matter and SO<sub>2</sub> emissions, and the second highest ranked source of NO<sub>x</sub> emissions. The industrial-commercial-institutional source category is a significant contributor and therefore an appropriate source category for regulation. There is no requirement that subcategories of a listed category or individual sources within a listed category also be "significant contributors." For this reason, the request for delisting fossil fuel-fired steam generating units with heat input capacities less than 73 MW (250 million Btu/hour) is denied.

#### Applicability

A number of commenters requested clarification on the types of facilities covered by the standards. The applicability requirements of the final standards have been clarified but remain basically the same as those in the proposal. All steam generating units with more than 29 MW (100 million Btu/hour) heat input capacity for which construction is commenced after June 19, 1984, except utility units covered under Subpart Da, are covered by Subpart Db. Except as noted below, the definition of "steam generating unit" includes all devices that combust fuel and produce steam, hot water, or a heat transfer fluid. Fuel combustion units which function as process heaters are not covered if their primary purpose is to heat a fluid in order to initiate or promote a chemical reaction in which the fluid itself is a reactant or catalyst.

Although the standards being adopted today apply to a wide range of industrial-commercial-institutional steam generating units, emission limits are established only for specified fuels or fuel mixtures. Particulate matter emission limits are established for coal, municipal-type solid waste, wood and mixtures of these fuels with other fuels, and NO<sub>x</sub> emission limits are established for natural gas, distillate oil, residual oil, coal, and mixtures of these fuels with refinery and chemical plant byproduct/waste fuels. Industrial-commercial-institutional steam generating units firing other fuels would be required to report their startup and maintain certain fuel records, but would not be subject to the particulate matter or NO<sub>x</sub> standards. These units may, however, be regulated under Prevention of Significant Deterioration (PSD) permit requirements.

The applicability date for the standards adopted today are June 19, 1984. The standards include one

particulate matter standard for low annual capacity factor coal- and municipal solid waste-fired units build between June 19, 1984 and today, and a stricter standard for such low capacity units built after today. The particulate matter standard for low annual capacity factor coal-fired units constructed between June 19, 1984 and today is 190 ng/J (0.20 lb/million Btu) heat input, whereas the standard for such units constructed after today is 22 ng/J (0.05 lb/million Btu) heat input. The particulate matter standard for low annual capacity factor municipal solid waste-fired units constructed between June 19, 1984 and today is 190 ng/J (0.20 lb/million Btu) heat input. However, for units constructed after today's date, the standard for low annual capacity factor municipal solid waste-fired units is the same as for all other municipal waste-fired units, which is 43 ng/J (0.10 lb/million Btu) heat input.

One commenter asked if the standards apply to exhaust gas incinerators at sulfur recovery units (e.g., Claus units). Emissions from sulfur recovery units at gas processing plants are covered under Subpart LLL of 40 CFR Part 60. Emissions from sulfur recovery units at petroleum refineries are covered under Subpart J. Although sulfur recovery unit tail gas incinerators may fire some natural gas, no tail gas incinerators large enough to meet the size requirements of the standards adopted today have been identified. Therefore, few, if any, exhaust gas incinerators at sulfur recovery units would be covered by the standards being adopted today.

Similarly, sewage sludge incinerators are not covered under these standards. Emissions from sewage sludge incinerators are regulated under Subpart O of 40 CFR Part 60.

Commenters questioned whether all municipal solid waste-fired units, including municipal waste incinerators, are covered. Municipal waste incinerators are currently regulated under Subpart E of 40 CFR Part 60. Subpart Db, as adopted, supersedes Subpart E to the extent that it regulates particulate matter emissions from municipal solid waste-fired incinerators that generate steam, hot water, or heat a heat transfer fluid and have a heat input capacity greater than 29 MW (100 million Btu/hour). A 29 MW (100 million Btu/hour) heat input capacity is equivalent to approximately a 230 Mg/day (250 tons/day) capacity municipal solid waste-fired unit. Municipal solid waste incinerators without heat recovery or that have a heat input capacity less than 29 MW (100 million

Btu/hour) remain subject to 40 CFR Part 60 Subpart E.

Under the standards adopted today, incinerators with heat recovery are required to meet the particulate matter standard of 43 ng/J (0.10 lb/million Btu) heat input. Incinerators without heat recovery and incinerators with heat recovery below 29 MW (100 million Btu/hour) heat input in size remain subject to the Subpart E particulate matter emission limit of 0.18 g/dscm (0.08 gr/dscf), which is approximately equivalent to 73 ng/J (0.17 lb/million Btu) heat input.

It should be noted that, in addition to being subject to the standards promulgated today, incinerators combusting byproduct/wastes containing polychlorinated biphenyls (PCB's), including incinerators with and without heat recovery, are subject to regulations pertaining to PCB's promulgated under the Toxic Substances Control Act (TSCA) (40 CFR 761.70).

Lastly, commenters raised questions about what fuels actually comprise municipal-type solid waste. Only waste such as paper, wood, yard wastes, food wastes, plastic, leather, rubber, and other materials typically collected from residential or commercial properties are regulated.

Another commenter inquired about the coverage of process heaters using waste heat economizers. Process heaters equipped with a waste heat economizer are not covered under these standards if the primary purpose of the process heater is to heat a fluid in order to initiate or promote a chemical reaction in which the fluid itself is a reactant or catalyst. The regulations have been revised to clarify this point.

The effect of the proposed standards on catalytic cracking units at petroleum refineries was questioned by one commenter. Catalytic cracking units are covered under Subpart J of 40 CFR Part 60 and are not covered under these standards. The final regulation addresses this.

Inquiry was also made concerning the applicability of Subpart Db to auxiliary (e.g., startup) steam generating units at electric utility power plants. Although these standards apply primarily to steam generating units used in industrial, commercial, and institutional applications, the standards do apply to utility units with heat input capacities greater than 29 MW (100 million Btu/hour) that are not covered under Subpart Da of 40 CFR Part 60. Consequently, small auxiliary steam generating units located at electric utility power plants meeting the

applicability requirements of today's standard but not Subpart Da are subject to the standards being promulgated today.

Several commenters expressed opinions about whether various fuels were covered under the emission standards. One commenter said that black liquor recovery steam generating units at pulp mills should not be covered. Black liquor is a byproduct at pulpmills and is fired in steam generating units to recover sodium bisulfate in the flyash. Black liquor recovery units are exempted from these standards if they do not fire regulated fuels, in which case they are covered under Subpart BB of 40 CFR Part 60 applicable to Kraft pulp mills. If black liquor recovery units have an annual capacity factor for fossil fuels greater than 10 percent, which is unlikely, they would be subject to the NO<sub>x</sub> standards under this subpart.

Other commenters questioned if various coal-derived fuels were covered by the emission standards. Coal-derived gases, coal-derived liquids, coal-oil mixtures, and coal-water mixtures and other coal-derived fuels are covered and emissions from firing these fuels would be subject to the particulate matter and NO<sub>x</sub> standards for coal-fired units. Coal and all coal-derived fuels, including both liquid and gaseous fuels, are being covered because there are demonstrated control technologies available to reduce emissions from the combustion of fuels in both forms.

Commenters questioned whether steam generating units firing mixtures of wood and natural gas would be subject to an emission limit of 130 ng/J (0.30 lb/million Btu) heat input under § 60.46b(a), or would be subject to some prorated emission limit under § 60.43b(b). The final NO<sub>x</sub> standards have been revised to make it clear that units firing mixtures of wood and natural gas are subject to the 130 ng/J (0.30 lb/million Btu) heat input emission limit.

It should also be noted that today's **Federal Register** contains a separate notice incorporating the same 130 ng/J (0.30 lb/million Btu) heat input emission limit into Subpart D for units firing mixtures of wood and natural gas.

#### *Particulate Matter*

*Coal-Fired Steam Generating Units.* Commenters stated that the cost effectiveness of particulate matter controls for coal-fired steam generating units covered by this subpart is high relative to the cost effectiveness of particulate matter control on utility power plants and this represents a poor use of capital for environmental

protection. Another commenter said the cost effectiveness of the proposed particulate matter standards is underestimated because the baseline emission level used in the cost analysis is higher than the actual emission levels generally allowed for these sources by State regulations.

With respect to the first comment, the analysis of the cost of the particulate matter standard for coal-fired steam generating units was based on the cost and performance capability of fabric filters on industrial-size units. The analysis showed that the cost effectiveness of applying particulate matter control varies as a function of steam generating unit size and that the cost effectiveness for smaller (i.e., industrial-size) steam generating units is higher than for larger units. However, this does not necessarily mean that either the standard for industrial-commercial-institutional units or the standard for utility units under Subpart Da is unreasonable.

Based on the cost of fabric filters, the incremental cost effectiveness of particulate matter control for a typical industrial-size steam generating unit [44 MW (150 million Btu/hour) heat input capacity] is estimated to be about \$1,600/Mg (\$1,500/ton) of pollutant removed over the next most effective technology. As expected, this cost effectiveness level is higher than for a typical utility-size unit which would experience an incremental cost effectiveness level of less than \$550/Mg (\$500/ton).

When selecting the particulate matter standard for utility steam generating units under Subpart Da, cost-effectiveness levels which might be considered unreasonable were not reached. The standard was limited by the technical performance level of ESP's and fabric filters rather than by cost effectiveness. If no particulate matter standards were adopted that exceeded the cost effectiveness levels of Subpart Da, few if any particulate matter standards would be possible because the large size of facilities covered by Subpart Da alone results in low cost-effectiveness levels.

The Clean Air Act does not require that the cost effectiveness of the standards for one source category be the same as the cost effectiveness of standards for other source categories (*Portland Cement Association v. Ruckelshaus* 486 F.2d 375, 389-90 (D.C. Cir. 1973)). The Act requires only that the costs of the standards be considered reasonable by the Administrator for the individual category of facilities subject to regulation. In this case, the cost effectiveness of applying fabric filter or

other equally effective particulate matter control technologies to industrial-commercial-institutional coal-fired units is considered reasonable.

The second comment was that a baseline particulate matter emission level of 260 ng/J (0.60 lb/million Btu) heat input is higher than the actual emission levels generally allowed by State regulations. The baseline emission level represents the emission reduction capability of single mechanical collectors. Although many States require the use of more efficient control systems, mechanical collectors are the control device universally required as a minimum under even the least stringent State implementation plan (SIP).

As discussed in the preamble to the proposed standards, two technical alternatives to this baseline for the control of particulate matter emissions were analyzed in terms of cost specific basis and cost effectiveness. Technical Alternative I was based on a moderate level of control [86 ng/J (0.20 lb/million Btu) heat input] achieved by sidestream separators, low pressure drop wet scrubbers, or low efficiency ESP's. Technical Alternative II was based on a high level of particulate matter control [22 ng/J (0.05 lb/million Btu) heat input] achieved by fabric filters and other equally effective control technologies.

The cost effectiveness of the proposed standards on an individual unit basis was analyzed in terms of the incremental cost effectiveness of each alternative level of control in relation to the next less stringent alternative. Therefore, the cost effectiveness of Technical Alternative I was estimated in relation to the cost effectiveness of single mechanical collectors capable of reducing particulate matter emissions to the baseline emission level of 260 ng/J (0.60 lb/million Btu) heat input or less. The cost effectiveness of Technical Alternative II, which coincided with the proposed standard, was estimated in relation to the cost effectiveness of sidestream separators capable of reducing particulate matter emissions to 86 ng/J (0.20 lb/million Btu) heat input or less (Technical Alternative I), rather than to the baseline level of 260 ng/J (0.60 lb/million Btu) heat input. This method of analysis provides an estimate of the marginal, or incremental, cost of control for an individual unit and is the most appropriate way to review increasingly stringent control options. Because the final particulate matter standard for coal-fired units (Technical Alternative II), is compared with the cost of Technical Alternative I and not the baseline costs, the assumed baseline control level is not a factor in the calculation of the incremental cost

effectiveness of the standard as adopted. Thus, the commenter's concern that the assumed baseline particulate matter emission level was too low is not relevant to the results of the cost analysis for the incremental cost between Technical Alternatives I and II.

Other commenters stated that the less stringent particulate matter standard of 86 ng/J (0.20 lb/million Btu) heat input proposed for coal-fired units less than 73 MW (250 million Btu/hour) in size with an annual capacity factor for coal of 30 percent (0.30) or less was unjustified and should be removed so that all coal-fired units would be subject to the same standard. The purpose for proposing a separate, more lenient standard for low capacity factor units was to distinguish seasonal, standby, or low-load units from base-load type units in response to the higher cost-effectiveness levels associated with control of particulate matter emissions from these types of coal-fired steam generating units.

Further analysis indicates that relatively few new coal-fired low annual capacity factor units are likely to be constructed. This pattern is expected to continue in the future, especially in light of NSPS proposed for the control of SO<sub>2</sub> emissions from coal-fired industrial-commercial-institutional steam generating units (51 FR 22384, June 19, 1986). The few low annual capacity factor coal-fired units that may have been constructed in the absence of SO<sub>2</sub> standards will likely shift from firing coal to firing natural gas or fuel oil as the primary fuel as a result of the SO<sub>2</sub> standards. As a result, the impacts associated with the application of more stringent particulate matter standards are not likely to materialize for low annual capacity factor units.

The judgment that relatively few low annual capacity factor steam generating units are likely to be constructed to fire coal in the future is based on a comparison of the economics of firing coal versus oil or natural gas. The annualized cost for a typical coal-fired industrial steam generating unit (44 MW; 150 million Btu/hour heat input capacity) in a low capacity factor application will exceed the cost of a natural gas-fired or oil-fired steam generating unit by 50 to 100 percent. Consequently, coal is generally not competitive with oil or natural gas in steam generating units which operate at low annual capacity factors. In such cases, the economics clearly favor selection of oil or natural gas as the primary fuel, regardless of the cost of emission control systems. As a result, in instances where a low annual capacity factor unit is built, the less than 5

percent cost increase to apply the most efficient particulate matter control technology will not change steam generating unit economics.

When viewed on an annual basis, the incremental cost effectiveness of the most effective systems is comparatively high for low capacity factor units. However, during periods of operation, the emissions potential of such coal-fired units can be as great or greater than units with higher annual capacity utilization rates. Coal-fired steam generating units used for space heating, for example, are often operated on a seasonal basis at or near full capacity for several months each year. During these periods, the emission rates of such units will be comparable to similar sized coal-fired units operated yearround.

Additionally, an emission limit requiring use of high efficiency control systems uniformly on all coal-fired units will improve the enforceability of the standards. If any low capacity factor coal-fired units are built, there will be an inherent economic incentive to operate them at higher capacity factors as plant production expands or if the unit is subsequently used for cogeneration purposes. If the unit is operated at an annual capacity factor greater than 0.30 (30 percent) it would become subject to a more stringent standard, requiring retrofit of the unit with a high efficiency control system. In addition to requiring a permit revision, such a change would require additional resources to enforce applicable monitoring, reporting, recordkeeping and other compliance-related provisions.

In the final regulation, therefore, the same standard [22 ng/J (0.05 lb/million Btu) heat input] is applicable to lower annual capacity factor coal-fired units as to higher annual capacity factor units. In the final standards, all coal-fired units constructed after today's date with heat input capacities greater than 29 MW (100 million Btu/hour) are subject to a particulate matter standard of 22 ng/J (0.05 lb/million Btu) heat input, independent of annual capacity utilization rates.

Although few, if any, units are expected to be built, it would be inappropriate to require any units which may have been constructed since proposal, but prior to today, to retrofit particulate matter control technology to meet the lower standard. The emission limit of 86 ng/J (0.20 lb/million Btu) heat input is being maintained for low annual capacity factor units constructed during this interim period. As a result, the final standards specify that low annual capacity factor coal-fired units, if constructed between June 19, 1984 and today, are subject to a particulate matter

standard of 86 ng/J (0.20 lb/million Btu) heat input.

*Wood-Fired Steam Generating Units.* One commenter stated that promulgation of the standard of 43 ng/J (0.10 lb/million Btu) heat input proposed for wood-fired steam generating units would discourage the use of wood fuels, and that existing State regulations for wood-fired units provide adequate environmental protection to meet national ambient air quality standards (NAAQS) for particulate matter. The commenter observed that particulate matter emissions from new wood-fired steam generating units would be about 10,000 Mg (11,000 tons) in 1989, or less than 0.2 percent of the national total emissions of particulate matter from industrial-commercial-institutional steam generating units.

Also, the commenter contended that promulgation of the proposed standard would reduce the use of logging residues as fuels. This would increase open burning of logging residue in "slash fires," resulting in a net deterioration of air quality. Finally, the commenter suggested that wood-fired steam generating units be allowed to operate under existing State standards [130 to 170 ng/J (0.30 to 0.40 lb/million Btu) heat input], provided the facility demonstrated that more than 12 percent of the fuel fired was derived from logging residues.

Section 111 of the Clean Air Act requires NSPS to be based on the level of emissions achievable using best demonstrated technology. Basing a standard on best demonstrated technology may result in an emission limit more stringent than a State regulation based on national ambient air quality standards (NAAQS). Particulate matter emissions of 10,000 Mg/year (11,000 tons/year) are significant and can be controlled at a reasonable cost. If the suggested logic were followed, it could be concluded that few, if any, NSPS were necessary because most individual units only contribute a small fraction of the final emissions from the source category.

In addition, promulgation of the standards is not expected to cause more logging residue to be burned in open "slash fires" than is already being burned in this manner. The promulgated standards will result in only a minor increase in cost and there will remain an economic incentive for use of logging residues where available as opposed to other fuels.

Another commenter stated that basing the 43 ng/J (0.10 lb/million Btu) heat input particulate matter emission limit for wood-fired-steam generating units on ESP technology was inappropriate. This

objection was based on emission data presented in the proposed standard that showed electrostatic granular filters (EGF) achieved particulate matter emission levels of 8.6 to 17.0 ng/J (0.02 to 0.04 lb/million Btu) heat input. This commenter also noted that fabric filters achieved a particulate matter emission level of 8.6 ng/J (0.02 lb/million Btu) heat input on two wood-fired steam generating units.

Both ESP's and EGF's are considered demonstrated particulate matter emission control technologies for wood-fired steam generating units. However, the particulate matter test data for EGF's are very limited. The proposed standard was based on careful consideration of test data available for ESP's and high pressure drop scrubbers applied to seven steam generating units firing wood and mixtures of wood and fossil fuels. In comparison, particulate matter test data were available from only two steam generating units using EGF's for control of particulate matter emissions. Because of the limited database, EGF's were not selected as the basis of the standard applicable to wood-fired steam generating units.

To date, fabric filters have been used infrequently on wood-fired steam generating units because of concern about potential fire hazards. New units with control interlocks appear to greatly reduce fire hazard. But, again, fabric filters have had limited application and test data are available from only two units.

For these reasons, the particulate matter standard for steam generating units firing wood or mixtures of wood and fossil fuels has not been changed and is based on application of ESP's or high pressure drop wet scrubbers. However, any technology, including EGF's or fabric filters, can be selected to comply with the standard being promulgated today.

*Municipal Solid Waste-Fired Steam Generating Units.* An emission limit of 43 ng/J (0.10 lb/million Btu) heat input was proposed for steam generating units firing municipal-type solid waste. The proposed emission limit was based on the performance of electrostatic precipitators (ESP's), as demonstrated in four Reference Method 5 particulate matter emission tests on units ranging in heat input capacity from 14 to 85 MW (47 to 290 million Btu/hour). The test data showed that particulate matter emissions decreased with increasing ESP collection area and that an emission limit of 43 ng/J (0.10 lb/million Btu) heat input could be achieved by use of ESP's with collection areas of at least 47 m<sup>2</sup>/ (m<sup>3</sup>/s) (240 ft<sup>2</sup>/1,000 acfm).

Although these test data were the best available during the development of the proposed standards for municipal solid waste-fired units, these data are from units that began operation in the early 1970's. Interest in waste-to-energy facilities has been increasing in recent years and a number of new units are currently in planning or under construction for operation in the near future. These new facilities are using more effective and sophisticated control equipment designed to achieve even lower particulate matter emission levels than the proposed standard. In fact, several commenters suggested that emission levels for lower than the proposed standard are now achievable by the current generation of waste-to-energy facilities. This latest generation of facilities is generally being required by permits to operate at optimum combustion levels and install spray dryer/fabric filter technology.

Efforts have been underway since proposal to collect and evaluate additional data on the performance of the latest emission control systems for municipal waste-fired units. Some additional data have been obtained; however, it is too early to draw firm conclusions about the emission reduction capabilities of this more sophisticated generation of waste-to-energy facilities. Consequently, although it is recognized that lower emission levels may be achievable in the future as a result of rapidly evolving developments in the field of municipal waste-fired steam generating unit emission control technology, an emission limit of 43 ng/J (0.10 lb/million Btu) heat input is being promulgated.

As a result of these recent events and as part of a settlement agreement with the Natural Resources Defense Council concerning their petition over the Agency's decision not to regulate emissions of polycyclic organic matter (POM), a thorough study of municipal waste-fired facilities is actively underway. A document that identifies, to the extent data are available: (1) The lowest emission levels for organic compounds (including dioxin), toxic metals, acid gases, and particulate matter that have been achieved from municipal waste combustors on a commercial scale; (2) the feed characteristics, operating conditions, and control techniques associated with such emission levels; and (3) available monitoring techniques that can be used to determine whether emission levels from municipal waste-fired units reflect the lowest emission levels achieved on a commercial scale will be issued in the near future. By June, 1987, the

Administrator will decide whether to regulate emissions from municipal waste-fired facilities further.

To aid in this effort, the Administrator requests any data or information available concerning the effectiveness and cost of various emission control systems for municipal waste combustion. In particular, comments are requested on the technological and economic feasibility of establishing a particulate matter emission limit of less than 43 ng/J (0.10 lb/million Btu) heat input based on use of spray dryer/fabric filter technology.

Comments were received stating that insufficient test data exist to establish particulate matter emission standards for units firing refuse-derived fuel (processed municipal-type solid waste). Comments indicated that variations in the moisture content and other characteristics of refuse-derived fuel result in considerable variation in particulate matter emission levels of these units.

The factors affecting the control of particulate matter emissions from units firing refuse-derived fuel and the test data supporting the proposed standard of 43 ng/J (0.10 lb/million Btu) heat input for such units have been reviewed further. The test data supporting the standard are representative of the range of fuel and steam generating unit operating conditions that can reasonably be expected for units fired with refuse-derived fuel. A review of these data and the factors affecting particulate matter emissions for these units supports the ability of well-designed, operated, and maintained ESP's with an adequate specific collection area to meet the standard.

#### *Nitrogen Oxides*

*Natural Gas- And Distillate Oil-Fired Steam Generating Units.* Numerous comments were received stating that the proposed NO<sub>x</sub> emission limit of 43 ng/J (0.10 lb/million Btu) heat input for natural gas- and distillate oil-fired units was too stringent for the package steam generating units covered by the proposed standards. Some commenters questioned the technical achievability of the proposed standard for package gas- and oil-fired steam generating units. Others questioned the reasonableness of the cost of meeting the standard. Additionally, some commenters noted the proposed standard might preclude the use of combustion air preheat.

Package steam generating units are those which are prefabricated and transported to the site by rail or barge, rather than being constructed on-site. Package units are characterized by relatively fixed designs and furnace

dimensions limited by rail or barge shipping restrictions. As a result, package natural gas- and oil-fired units are generally restricted to less than 59 to 73 MW (200 to 250 million Btu/hour) heat input capacity.

The proposed emission limit of 43 ng/J (0.10 lb/million Btu) heat input was based, in part, on vendor guarantees of the performance capabilities of staged combustion burners (SCB's). In general, vendors would not confirm the verbal guarantees they offered informally prior to proposal of the standards, especially with respect to large package steam generating units. Review of information included in the comments and analysis of the limited emission test data available on the performance of SCB's (also known as "low-NO<sub>x</sub> burners") do, however, indicate that the proposed NO<sub>x</sub> emission limits can be achieved. To do so, the volumetric heat release rate for the steam generating unit would have to be maintained below some defined level. The American Boiler Manufacturers Association commented that the volumetric heat release rate would have to be limited to 730,000 to 830,000 J/sec-m<sup>3</sup> (70,000 to 80,000 Btu/hour-ft<sup>3</sup>) to allow low NO<sub>x</sub> firing methods. Additionally, communications with one low-NO<sub>x</sub> burner manufacturer indicated the unit heat release rate would have to be maintained below about 780,000 J/sec-m<sup>3</sup> (75,000 Btu/hour-ft<sup>3</sup>) to allow SCB application. Since proposal, data have been obtained from two package steam generating units employing staged combustion technology. Analysis of these limited data indicated that SCB controls can be used to meet the proposed standard at heat release rates of less than about 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>).

As previously mentioned, package steam generating units covered by the standard are in the 29 to 73 MW (100 to 250 million Btu/hour) size range. Because these units are restricted in maximum outside dimensions, they typically have volumetric heat release rates that increase with increasing unit size. Typical heat release rates for package steam generating units range from about 776,000 J/sec-m<sup>3</sup> (75,000 Btu/hour-ft<sup>3</sup>) for a 29 MW (100 million Btu/hour) unit up to about 983,000 J/sec-m<sup>3</sup> (95,000 Btu/hour-ft<sup>3</sup>) for the largest package unit. Therefore, virtually all package gas- and oil-fired units covered by the standard being adopted today have design heat release rates in excess of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>). Units larger than 73 MW (250 million Btu/hour) heat input capacity are typically field-erected units and have

heat release rates of less than 410,000 J/sec-m<sup>3</sup> (40,000 Btu/hour-ft<sup>3</sup>).

Therefore, to meet the proposed standards using SCB controls, package steam generating units would have to be operated at less than full capacity in order to restrict their heat release rates to less than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>). An oversized boiler would have to be used to provide increased furnace volume to reduce the overall, volumetric heat release rate. Operation at partial load to maintain heat release rates at or below a certain ceiling is referred to as derate, and is calculated as the excess capacity that must be purchased to meet a steam demand while not exceeding a given heat release rate. As an alternative to derate, a single field-erected unit or a group of smaller packaged units could be used in place of a single package steam generating unit and little or no derate would be required. In any of the three cases, the cost of meeting a given steam demand would be higher than current conditions.

Data from both natural gas- and residual oil-fired package industrial steam generating units were gathered to determine how much derate would be needed to meet the proposed standards as a function of unit heat input capacity. Analysis of these data indicated that maintaining the maximum design heat release rate below a 730,000 J/sec-m<sup>3</sup> (75,000 Btu/hour-ft<sup>3</sup>) level would require about 10 percent derate for a 29 MW (100 million Btu/hour) package unit and up to 30 percent derate for the largest package unit. The application of 30 percent derate to a typical 44 MW (150 million Btu/hour) package natural gas-fired steam generating unit would increase steam generating unit capital cost by 18 percent and annual operating costs by 2 percent. As a result, the incremental costs associated with meeting a NO<sub>x</sub> emission limit of 43 ng/J (0.10 lb/million Btu) heat input based on the use of SCB controls over the costs associated with meeting a NO<sub>x</sub> emission limit of 86 ng/J (0.20 lb/million Btu) based on the use of LEA alone leads to incremental cost effectiveness levels of more than \$4,400/Mg (\$4,000/ton) of NO<sub>x</sub> removed. Consideration of the cost effectiveness of derate leads to the conclusion that the cost effectiveness of the proposed standard for package units covered by the standard is unreasonable. The cost effectiveness associated with NO<sub>x</sub> standards based on the use of LEA, however, is considered reasonable because no derate is necessary and minimal cost impacts occur.

As discussed in the proposal, LEA is one of the most common forms of

combustion modification and is directly applicable to industrial-commercial-institutional steam generating units. LEA operation involves reducing the excess combustion air to the minimum amount needed for complete combustion. Although effective on both fuel and thermal NO<sub>x</sub>, emission test data indicate that LEA is most effective in reducing thermal NO<sub>x</sub>, which is the principal source of NO<sub>x</sub> emissions from natural gas and distillate oil because of their low fuel nitrogen contents.

A large amount of NO<sub>x</sub> emission data was collected and analyzed on the performance of LEA prior to proposal. Since proposal, an emission test data set from an additional package unit with a high design heat release rate of approximately 1,035,000 J/sec-m<sup>3</sup> (100,000 Btu/hour-ft<sup>3</sup>) was added to the database. The total database was re-analyzed to determine the NO<sub>x</sub> emission level achievable by LEA under worst case conditions for the formation of NO<sub>x</sub>, including high heat release rate and combustion air preheat. The results of this new analysis were essentially the same as for the analysis of LEA performance carried out prior to proposal. The results show that LEA is capable of reducing NO<sub>x</sub> emissions from natural gas- and distillate oil-fired steam generating units without combustion air preheat to 86 ng/J (0.20 lb/million Btu) heat input or less on a 30-day rolling average basis and to 130 ng/J (0.30 lb/million Btu) heat input with combustion air preheat.

Review of information concerning steam generating unit sales over the past 5 years indicates that very few package steam generating units use combustion air preheat. As the name implies, combustion air preheat uses flue gas from the steam generating unit (and a heat exchanger) to preheat combustion air prior to combustion. The recovery of heat from the exhaust gases increases the overall thermal efficiency of the unit. Rather than use combustion air preheat, however, an economizer could be used to accomplish the same result. An economizer uses flue gas (and a heat exchanger) to preheat feedwater to the steam generating unit. Again, heat is recovered from the exhaust gases and an increase in thermal efficiency results. With either heat recovery option, the cost and complexity of the steam generator are increased. Additionally, space restrictions on shipment may preclude the units with preheat being shipped as one package. Because few package units use combustion air preheat and in those instances where an increase in thermal efficiency is desired, a reasonable alternative to combustion

air preheat is available, the final standard will limit NO<sub>x</sub> emissions from all natural gas- and distillate oil-fired steam generating units with heat release rate of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>) or greater to 86 ng/J (0.20 lb/million Btu) heat input.

An emission limit of 43 ng/J (0.10 lb/million Btu) heat input is, however, achievable for steam generating units with heat release rates less than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>). For example field-erected units have a fire box large enough to accommodate the longer flame lengths associated with low NO<sub>x</sub> firing methods without derate. Field-erected steam generating units also have typical design maximum heat release rates of less than 410,000 J/sec-m<sup>3</sup> (40,000 Btu/hour-ft<sup>3</sup>). Therefore, an emission limit of 43 ng/J (0.10 lb/million Btu) heat input is being promulgated for natural gas- or distillate oil-fired steam generating units with maximum design heat release rates less than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>).

In summary, the final standards will limit NO<sub>x</sub> emissions to 43 ng/J (0.10 lb/million Btu) heat input for units firing natural gas or distillate oil with maximum design heat release rates of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>) or less, and will limit NO<sub>x</sub> emissions to 86 ng/J (0.20 lb/million Btu) heat input for units with maximum design heat release rates greater than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>). Because package units in the size range covered by the standard will typically have heat release rates in the range of 780,000 to 990,000 J/sec-m<sup>3</sup> (75,000 to 95,000 Btu/hour-ft<sup>3</sup>), practically all package units covered by today's standards will be subject to the 86 ng/J (0.20 lb/million Btu) heat input standard. Because most, if not all, field-erected steam generating units will have maximum design heat release rates of less than 410,000 J/sec-m<sup>3</sup> (40,000 Btu/hour-ft<sup>3</sup>), the 43 ng/J (0.10 lb/million Btu) heat input standard will, for the most part, apply to field-erected units.

*Residual Oil-Fired Steam Generating Units.* Several commenters indicated they also believed the proposed NO<sub>x</sub> standards for package residual oil-fired units were unreasonable. Specifically, commenters felt that staged combustion (SC) controls for reducing NO<sub>x</sub> emissions from package units had not been demonstrated to meet the proposed emission limits of 130 ng/J (0.30 lb/million Btu) heat input for low nitrogen residual oil and 170 ng/J (0.40 lb/million Btu) heat input for high nitrogen residual oil for package steam generating units. Use of SC controls on package units would necessitate derating to accommodate the longer flame lengths

associated with SC controls. Consequently, there could be a substantial cost penalty associated with meeting the emission limits as proposed. Commenters recommended that the proposed emission limits be increased to 170 ng/J (0.40 lb/million Btu) heat input for low nitrogen content oil and to 210 ng/J (0.50 lb/million Btu) heat input for high nitrogen content residual oils for package units.

Commenters, however, including two major industry trade associations (American Boiler Manufacturers Association and Council of Industrial Boiler Owners), specifically recommended promulgation of the proposed standard of 130 ng/J (0.30 million Btu/hour) heat input for low nitrogen residual oil-fired units and 170 ng/J (0.40 lb/million Btu) heat input for high nitrogen residual oil-fired units above 73 MW (250 million Btu/hour) heat input capacity.

In addition, one of the major steam generating unit manufacturers and one of the major burner manufacturers indicated their willingness to offer guarantees to achieve the proposed standards for units above 73 MW (250 million Btu/hour) in size. The support for the proposed standard as it applies to field-erected steam generating units by industry trade associations and manufacturers indicates that SC is recognized as being a NO<sub>x</sub> control technique that can reduce NO<sub>x</sub> emissions to the level of the proposed standards.

As evidenced by the recommendations of commenters, that the proposed standards should be promulgated for field-erected units, the issue posed in these comments is not the ability of demonstrated emission control techniques to reduce NO<sub>x</sub> emissions from residual oils to the proposed levels, but the reasonableness of applying this technology to package units, given the costs associated with the required derate. To meet the proposed standards, most package residual oil-fired steam generating units in the 29 to 73 MW (100 to 250 million Btu/hour) heat input size range would have to be derated by 10 to 35 percent to accommodate the longer flame lengths associated with SC controls. The cost effectiveness of this approach to meeting the standards is up to \$4,400/Mg (\$4,000/ton) of NO<sub>x</sub> reduction.

An alternative to derating as a means of meeting the proposed standards for residual oil would be to fire low nitrogen content residual oil, such as those containing less than 0.17 weight percent nitrogen. Analysis of the available NO<sub>x</sub> emission data show that, without combustion air preheat, use of LEA

controls alone are sufficient to meet the proposed NO<sub>x</sub> standard when firing residual oils containing 0.17 weight percent nitrogen or less. Since LEA does not extend flame lengths, the proposed standards could be met firing very low nitrogen residual oils in large package units without any derating.

Information on the nitrogen content of residual oils sold in the United States is extremely limited. Information that is available is not current, but indicates that only about 10 to 15 percent of residual fuel oils have nitrogen contents of less than 0.17 weight percent. About a third of residual fuel oils have nitrogen contents of less than 0.2 weight percent and about two-thirds of residual fuel oils have nitrogen contents of less than 0.3 weight percent. The availability of residual oils with very low nitrogen contents of 0.17 weight percent or less, therefore, could be quite limited.

An alternative to firing such extremely low nitrogen oils for meeting the proposed standards would be to switch from firing residual oil to firing natural gas. Switching to natural gas would avoid having to fire a very low nitrogen content residual oil or derating the unit. However, the cost effectiveness associated with this alternative is also fairly high, about \$2,750/Mg (\$2,500/ton) of NO<sub>x</sub> reduction, because of fuel price differentials.

Consequently, in the final standards the emission limit for package residual oil-fired steam generating units has been set at 170 ng/J (0.40 lb/million Btu) heat input, independent of the nitrogen content of the residual oil fired. Compliance with a NO<sub>x</sub> emission limit of 170 ng/J (0.40 lb/million Btu) heat input can be achieved with LEA alone without combustion air preheat when firing residual oils with nitrogen contents of about 0.3 weight percent or less. No derate would be necessary.

Most package residual oil-fired units do not use preheated combustion air. In addition, in those isolated cases where an owner/operator wanted to increase the thermal efficiency of a steam generating unit, economizers could be used to preheat feedwater rather than using preheated combustion air.

Since about two-thirds of residual fuel oils have nitrogen contents of less than 0.3 weight percent, fuel availability should not be a problem. Also, in today's residual fuel oil market, there is no apparent price premium for residual oils with nitrogen contents less than 0.3 weight percent, unless one focuses on residual oils with a very low nitrogen content (i.e., less than 0.17 weight percent). Therefore, there should be no increased costs associated with firing residual oils of less than 0.3 weight

percent nitrogen in order to meet the standard.

Because the cost effectiveness of LEA control for reducing NO<sub>x</sub> emissions is negligible, the cost effectiveness of a 170 ng/J (0.40 lb/million Btu) heat input standard for package residual oil-fired units based on LEA and firing of residual oils with a nitrogen content of less than 0.3 weight percent is considered reasonable.

As mentioned above, the concerns expressed by commenters relative to SC controls and derate do not apply to field-erected steam generating units, which predominate in steam generating unit sizes above 73 MW (250 million Btu/hour) heat input capacity. Commenters expressed no objection to the proposed standards of 130 ng/J (0.30 lb/million Btu) heat input and 170 ng/J (0.40 lb/million Btu) heat input for low and high nitrogen residual oil, respectively, in the case of field-erected units.

The proposed standards for residual oil varied with the nitrogen content of the oil because fuel nitrogen is a major determinant of NO<sub>x</sub> emissions from residual oil combustion and of the effectiveness of NO<sub>x</sub> control techniques on residual oil-fired units. No distinction was made in the proposed standards between package and field-erected oil-fired steam generating units.

In the case of units above 73 MW (250 million Btu/hour) in size, the effect of the emission limit proposed for high nitrogen residual oil would have been to raise the existing standard applicable to these units. The existing 1971 standard for oil-fired units (Subpart D of 40 CFR Part 60) is 130 ng/J (0.30 lb/million Btu) heat input. It has been concluded that raising the standard for these units to 170 ng/J (0.40 lb/million Btu) heat input is unnecessary for three reasons.

First, as stated above, field-erected units are not restricted by the same furnace size limitations as package units and, therefore, can accommodate SC controls without the need for derate. Second, unlike for package units, staged combustion has been demonstrated to be effective in reducing NO<sub>x</sub> emissions from field-erected units firing high nitrogen residual oil. Third, the existing standard has been in effect for over 15 years and there is no indication that it needs changing. In fact, no continuous emission monitoring data from field-erected units firing high nitrogen residual oil could be obtained because such units are generally exempt under § 60.45(b)(3) from a requirement to continuously monitor NO<sub>x</sub> emissions due to having emissions during the performance test of less than 70 percent

of the standard 86 ng/J (0.20 lb/million Btu) heat input.

Considering all of these factors, it appears there has been little problem meeting the longstanding Subpart D standard of 130 ng/J (0.30 lb/million Btu) heat input for high nitrogen residual oil-fired units that are field-erected and there is no need to change that standard. Therefore, the 170 ng/J (0.40 lb/million Btu) heat input standard proposed in 1984 for units greater than 73 MW (250 million Btu/hour) heat input capacity which fire high nitrogen residual oil has been replaced in the final standards. All residual oil-fired units larger than 73 MW (250 million Btu/hour) heat input capacity are subject to the same 130 ng/J (0.30 lb/million Btu) heat input emission limit.

As discussed above, steam generating units in the 29 MW to 73 MW (100 to 250 million Btu/hour) size range are generally package units and have heat release rates of 776,000 to 983,000 J/sec-m<sup>3</sup> (75,000 to 95,000 Btu/hour-ft<sup>3</sup>). Field-erected units are predominant above 73 MW (250 million Btu/hour) heat input capacity and have heat release rates less than about 414,000 J/sec-m<sup>3</sup> (40,000 Btu/hour-ft<sup>3</sup>). A mid-point between the two types of steam generating units that would distinguish between the two unit types would be about 720,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>).

Consequently, the final standards limit NO<sub>x</sub> emissions to 130 ng/J (0.30 lb/million Btu) heat input for all residual oil-fired units with maximum design heat release rates of 720,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>) or less and to 170 ng/J (0.40 lb/million Btu) heat input for all residual oil-fired units with a maximum design heat release rate of greater than 720,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>), independent of the nitrogen content of the residual oil being fired.

**Spreader Stoker Steam Generating Units.** Comments were received on the proposed standard limiting NO<sub>x</sub> emissions from coal-fired spreader stoker steam generating units to 260 ng/J (0.60 lb/million Btu) heat input. Several commenters questioned the ability of spreader stoker steam generating units using preheated combustion air >150°C (300°F) to meet the proposed standard. The commenters did not submit any new data showing that the NO<sub>x</sub> standards are not achievable but they did reference a recent test at a 115 MW (400 million Btu/hour) coal-fired spreader stoker with preheated combustion air. This unit had been selected for testing because it represented the use of combustion air preheat on a spreader stoker with a very high heat release rate. Commenters stated that the data from

these tests substantiate the need for a higher NO<sub>x</sub> emission level for spreader stokers with preheated combustion air. One commenter suggested that a dual standard would be appropriate with the proposed standard of 260 ng/J (0.60 lb/million Btu) heat input applying to spreader stoker steam generating units not using combustion air preheat [<150°C (300°F)], and a standard of 300 ng/J (0.7 lb/million Btu) heat input applying to steam generating units using preheated combustion air [>150°C (300°F)]. The commenters also maintained that the proposed NO<sub>x</sub> emission limit would force spreader stoker units with preheated combustion air to be designed for heat release rates much lower than typical design, thereby encouraging the preferential use of pulverized coal-fired units over use of spreader stoker units.

The results obtained from the referenced emissions test on the 115 MW (400 million Btu/hour) spreader stoker were analyzed to show the effect of combustion air preheat on NO<sub>x</sub> emissions. The analysis showed that combustion air preheat temperature did not have a significant effect on NO<sub>x</sub> emissions. The test results showed that combustion air preheat slightly lowered NO<sub>x</sub> emissions in three of four paired data tests conducted.

Under full load operating conditions and with combustion air preheat, NO<sub>x</sub> emissions at the tested unit exceeded 260 ng/J (0.60 lb/million Btu) heat input. However, further analysis of these data revealed that the relatively high NO<sub>x</sub> emissions at this facility were due to the high grate heat release rate of this unit. This unit is more than 20 years old and the grate heat release rate is 2,600,000 J/sec-m<sup>2</sup> (818,000 Btu/hour-ft<sup>2</sup>) at full load. By comparison, the maximum design grate heat release rate for new spreader stoker steam generating units is approximately 2,200,000 J/sec-m<sup>2</sup> (700,000 Btu/hour-ft<sup>2</sup>). The manufacturer of the tested unit confirmed that the unit was designed with an atypically high grate heat release rate. Analysis of the test data indicated that if the grate heat release rate of this unit were lowered to less than 2,200,000 J/sec-m<sup>2</sup> (700,000 Btu/hour-ft<sup>2</sup>), NO<sub>x</sub> emissions would be less than 260 ng/J (0.60 lb/million Btu) heat input.

The NO<sub>x</sub> emissions data previously presented in the proposed standard were based on tests from 11 different spreader stoker steam generating units. Predicted average NO<sub>x</sub> emissions for these steam generating units were in the range of 150 to 230 ng/J (0.34 to 0.54 lb/million Btu) heat input with an average of 200 ng/J (0.46 lb/million Btu) heat input. The comment that a 260 ng/J (0.60

lb/million Btu) heat input standard would force spreader stoker steam generating units using preheated combustion air to be designed for very low heat release rates is unsubstantiated. The use of preheated combustion air does not appear to noticeably affect NO<sub>x</sub> emissions from spreader stoker units. Analyses of the data indicated that steam generating units with design heat release rates within the normal range of design parameters can meet the standard.

Another commenter stated the upward adjustment of the test data 260 ng/J (0.60 lb/million Btu) heat input from 230 ng/J (0.54 lb/million Btu) heat input to account for variability in NO<sub>x</sub> emissions did not reflect data from the other two tested units, which had long-term NO<sub>x</sub> emissions ranging from 150 to 190 ng/J (0.36 to 0.44 lb/million Btu) heat input. This commenter suggested the emission level should be lowered to between 170 to 210 ng/J (0.40 to 0.50 lb/million Btu) heat input based on the long-term emissions of these units.

This comment reflects a misunderstanding of the method used to calculate the emission limit. The long-term NO<sub>x</sub> data were analyzed to determine the variation in NO<sub>x</sub> emissions from mean emission levels rather than to determine the applicable emission limit. Time series analysis was used to calculate the maximum 30-day average NO<sub>x</sub> emission levels that would be expected to occur once every 10 years. This analysis concluded that the peak 30-day average emission rate would be expected to be about 7 percent greater than the mean emission rate. The 7 percent variability factor reflects a statistical projection and is not directly comparable to average NO<sub>x</sub> emission data measured during the test program.

**Pulverized Coal-Fired Steam Generating Units.** Several comments were received concerning the proposed NO<sub>x</sub> standard for pulverized coal-fired steam generating units. Many commenters noted that the NO<sub>x</sub> standard for pulverized coal-fired steam generating units was based on NO<sub>x</sub> emissions data from tangentially-fired pulverized coal-fired units larger than 147 MW (500 million Btu/hour) heat input capacity. The commenters stated that pulverized coal-fired units used in industrial applications would more likely be smaller wall-fired pulverized coal-fired units rather than tangentially-fired pulverized coal-fired units which are more commonly used for large utility units. The commenters questioned the ability of the more common wall-fired pulverized coal-fired units to achieve the

proposed NO<sub>x</sub> standard of 300 ng/J (0.70 lb/million Btu) heat input. To accommodate wall-fired units, it was recommended that the NO<sub>x</sub> emission limit for pulverized coal-fired units be increased to 340 ng/J (0.80 lb/million Btu) heat input capacity.

In response to these comments, 90 days of continuous NO<sub>x</sub> emission data were obtained from a 88 MW (300 million Btu/hour) heat input capacity wall-fired pulverized coal-fired unit with overfire air firing eastern bituminous coal. Data from a unit firing eastern bituminous coal were selected because previously collected emissions data showed higher potential NO<sub>x</sub> emissions when eastern bituminous coal is fired than when western subbituminous coal is fired.

More than 1,200 hours of continuous NO<sub>x</sub> emissions data from this unit were analyzed. The hourly NO<sub>x</sub> emissions for the 90-day period ranged from 150 to 290 ng/J (0.35 to 0.68 lb/million Btu) heat input, and steam generating unit load for the period during which data were collected ranged from 38 to 90 percent. During the entire 90-day test period, the NO<sub>x</sub> emissions averaged 210 ng/J (0.50 lb/million Btu) heat input and steam generating unit load averaged 49 percent. A regression analysis of the continuous NO<sub>x</sub> emission data was conducted to predict mean NO<sub>x</sub> emissions from this unit under operating conditions of 100 percent load and 4.8 percent O<sub>2</sub>. This analysis predicted average NO<sub>x</sub> emissions at 100 percent load to be 290 ng/J (0.67 lb/million Btu) heat input.

A time series statistical analysis of the data was conducted to determine the variability in NO<sub>x</sub> emissions projected to occur over a 30-day period. This analysis predicted the peak 30-day NO<sub>x</sub> emission levels to be about 9 ng/J (0.02 lb/million Btu) heat input higher than the mean. Therefore, the peak NO<sub>x</sub> emissions based on a 30-day rolling average would be 300 ng/J (0.69 lb/million Btu) heat input. Therefore, the proposed NO<sub>x</sub> standard of 300 ng/J (0.70 lb/million Btu) heat input is again demonstrated to be achievable and is being promulgated for all pulverized coal-fired steam generating units.

**NO<sub>x</sub> Control for Waste Fuels.** Several commenters expressed concerns over the regulation of liquid and gaseous byproduct/waste fuels. These commenters said that, in many instances, the NO<sub>x</sub> emission limits specified in the proposed standards could not be met when combusting these byproducts/wastes because of high nitrogen content or other properties. Several commenters also stated that insufficient data are available on

emissions from steam generating units firing gaseous or liquid byproducts/wastes to demonstrate the achievability of the proposed NO<sub>x</sub> standards. Commenters stated that the emission and combustion characteristics of byproducts/wastes are too variable and uncertain to justify their inclusion in the proposed NO<sub>x</sub> standards. Finally, commenters objected that the definition of byproducts/wastes is too broad.

In response to these comments, several points need to be considered. First, the NO<sub>x</sub> standards being promulgated today are not intended to encourage or discourage the firing of byproduct/wastes. The regulation of byproduct waste firing is addressed by other regulations. For example, the firing of fuels containing polychlorinated biphenyls (PCB's) are regulated under the Toxic Substances Control Act (TSCA) (40 CFR 761.70). The TSCA regulations require that units firing fuels containing less than 500 ppm PCB demonstrate a 99.9 percent thermal destruction efficiency. Units firing fuels containing greater than 500 ppm PCB must demonstrate a 99.9999 percent thermal destruction efficiency.

Second, the proposed NO<sub>x</sub> emission limits for byproducts/wastes are applicable only to steam generating units firing mixtures of natural gas or oil with byproduct/waste fuels. The purpose of these provisions is not only to control NO<sub>x</sub> emissions from byproduct/waste fuel combustion, but also to make clear that the cofiring of byproducts/waste fuels with natural gas or oil will not have the unintended effect of exempting a steam generating unit from the NO<sub>x</sub> emission limits that fire a minimum amount of other fuels.

Third, a comparison of data gathered from the steam generating units burning fuel mixtures including gaseous byproduct/waste fuels with data gathered from natural gas-fired units shows no discernible difference in NO<sub>x</sub> emissions from the combustion of these two fuels. Similarly, a comparison of data gathered from steam generating units burning fuel mixtures including liquid byproduct/waste fuels with data gathered from residual oil-fired units shows no discernible difference in NO<sub>x</sub> emissions from the combustion of these two fuels. The analysis of available data also indicates that NO<sub>x</sub> control technologies that are effective in reducing NO<sub>x</sub> emissions from steam generating units firing natural gas or residual oil are equally effective in reducing NO<sub>x</sub> emissions from steam generating units firing gaseous byproduct/waste fuels or liquid byproduct/waste fuels, respectively. Consequently, it was concluded that the

proposed NO<sub>x</sub> standards for units burning natural gas should apply to units burning mixtures of natural gas and gaseous byproduct/waste fuels. Similarly, it was concluded that NO<sub>x</sub> standards for units firing residual oil should apply to units burning mixtures of oil and liquid byproduct/waste fuels.

As discussed above, the NO<sub>x</sub> emission limits for natural gas- and residual oil-fired steam generating units with heat release rates greater than 620,000 J/sec-m<sup>3</sup> (60,000 Btu/hour-ft<sup>3</sup>) have been revised to 86 ng/J (0.20 lb/million Btu) heat input and 170 ng/J (0.40 lb/million Btu) heat input, respectively. Consequently, the emission limits for steam generating units firing natural gas and gaseous byproduct/waste fuels and for units firing residual oil and liquid byproduct/waste fuels have been revised accordingly. The proposed NO<sub>x</sub> emission limits have not been changed for steam generating units with low design heat release rates firing gaseous or liquid byproduct/waste fuels in combination with fossil fuels.

Because many of the concerns expressed about regulation of byproduct/waste fuels centered on the achievability of the proposed emission limit of 43 ng/J (0.10 lb/million Btu) heat input, which was based on the standard for natural gas and distillate oil, revision of that emission limit upward to 86 ng/J (0.20 lb/million Btu) heat input for steam generating units with high heat release rates is expected to resolve most of the concerns about regulation of byproduct/waste fuels.

Section 60.44b(c) of the final rule incorporates a procedure that the owner or operator of an affected facility firing nonhazardous byproduct/waste fuels can use to petition the Administrator for a facility-specific NO<sub>x</sub> emission limit. In order to obtain a facility-specific NO<sub>x</sub> emission limit, the owner or operator of the facility must present sufficient evidence to the Administrator to demonstrate that the facility is unable to meet the NO<sub>x</sub> emission limits due to the characteristics of the byproducts/wastes, such as high nitrogen content, high heat value, or other factors. As a part of this evidence, the owner or operator of the steam generating unit must demonstrate compliance with the applicable emission limit when firing only natural gas or residual oil, as appropriate. This is necessary to determine excess air levels and other operating conditions representative of the best demonstrated technology. If the facility is capable of complying with the emission limit while firing natural gas or residual oil using the best demonstrated technology, but not capable of

complying while firing a fuel mixture including the byproduct/waste under the same conditions, the Administrator will establish an individual NO<sub>x</sub> emission limit for that steam generating unit reflecting the level of NO<sub>x</sub> emission reduction achievable when firing the byproduct/waste.

The final rule also incorporates a procedure that the owner or operator of a steam generating unit which combusts a fuel mixture including toxic waste, as determined under the Resource Conservation and Recovery Act (RCRA), can use to petition the Administrator for a facility-specific waiver from the NO<sub>x</sub> emission limits. In order to obtain a facility-specific waiver, the owner or operator must present sufficient evidence to the Administrator to support the contention that the facility is unable to meet the NO<sub>x</sub> emission limit and still achieve the level of thermal destruction of the toxic byproduct/waste required by RCRA.

The procedures for applying for this facility-specific emission limit or waiver are set out in the final rule. Because each application for a site-specific standard or waiver will entail a different set of waste characteristics and steam generating unit designs, greater standardization of forms or procedures is not practical. Instead, each application will be evaluated on its individual merits. The authority to establish a facility-specific NO<sub>x</sub> standard or waiver will not be delegated by the Administrator. Petitions must be submitted directly to EPA and the establishment of site-specific standards will not be delegated.

After reviewing the definition of byproduct/waste in the proposed standard, it was determined that the definition should be revised to reflect more accurately the intention of the regulation and the nature of the data on which it is based. These data were drawn from steam generating units which combust byproducts/wastes from chemical plants and refineries, and it is byproducts/wastes from these sources which are intended to be regulated by the standard. Consequently, the definition of byproduct/waste has been revised to specify that the byproducts/wastes covered by the definition extend only to those which are produced at chemical plants and refineries. Chemical plants and refineries are defined as facilities which are classified by the Department of Commerce under Standard Industrial Classification (SIC) codes 28 and 29, respectively.

**NO<sub>x</sub> Control For Wood/Natural Gas-Fired Steam Generating Units.** The proposed standards included a NO<sub>x</sub> emission limit of 130 ng/J (0.30 lb/

million Btu) heat input for steam generating units firing mixtures of natural gas and wood if more than 5 percent fossil fuel is fired on an annual basis. Commenters stated that the 5 percent criterion was not realistic because it did not account for the need to periodically increase fossil fuel use to account for fluctuations in wood availability and wood characteristics. Based on these comments, the annual capacity factor for fossil fuel for exemption from the NO<sub>x</sub> standards has been increased from 5 percent to 10 percent.

Also, a separate notice is being published elsewhere in today's **Federal Register** promulgating the amendment changing the NO<sub>x</sub> emission limit under Subpart D for units firing mixtures of wood and natural gas to 130 ng/J (0.30 lb/million Btu) heat input.

**Status Of Alternative Technologies.** One comment was made regarding flue gas recirculation (FGR) as a form of combustion modification to reduce NO<sub>x</sub> emissions. The commenter stated that FGR could achieve lower NO<sub>x</sub> emissions than use of only LEA. The limited data available at the time of proposal did not allow FGR to be analyzed or considered as a basis of the proposed standard. Since the standard was proposed, additional data indicate that FGR may be capable of greater reductions in NO<sub>x</sub> emissions than was previously expected. These data also indicate that FGR is most effective in suppressing thermal NO<sub>x</sub> formation, which is the predominant NO<sub>x</sub> formation mechanism during the combustion of natural gas and distillate oil. Presently, insufficient data are available to base the final standard solely on FGR technology. Use of FGR for reducing NO<sub>x</sub> emissions is neither precluded nor discouraged by the promulgated standards. In addition to LEA or other technologies, FGR may be used to achieve the NO<sub>x</sub> emission limits being promulgated today.

One comment addressed the discussion in the proposal concerning NO<sub>x</sub> flue gas treatment systems, including selective catalytic reduction (SCR). SCR refers to the process in which combustion gases are mixed with ammonia and passed over a catalyst to reduce NO<sub>x</sub> emissions to elemental nitrogen and water. The commenter felt that although SCR was discussed as a method to reduce NO<sub>x</sub> emissions, inadequate consideration had been given to other types of NO<sub>x</sub> flue gas treatment systems.

The commenter is correct in noting that there are other types of NO<sub>x</sub> flue gas treatment systems in addition to SCR. Current post-combustion NO<sub>x</sub> control research in the United States is

focused on processes that have both NO<sub>x</sub> and SO<sub>x</sub> removal capability. Included among these advanced removal processes is a flue gas treatment process which uses a copper oxide acceptor material to remove both NO<sub>x</sub> and SO<sub>x</sub> from flue gas. There is also a fluidized bed version of the same flue gas treatment process. The electron beam process is a dry process where ammonia is added to the flue gas which is then bombarded with an electron beam, removing NO<sub>x</sub> and SO<sub>x</sub> in the process. This concept is being examined for NO<sub>x</sub> removal alone and in combination lime spray dryers for SO<sub>2</sub> removal. These types of post-combustion NO<sub>x</sub> controls are being investigated at several bench scale and pilot unit projects in the United States. However, the processes being investigated are not commercially established and are not considered demonstrated technologies for the purpose of developing standards of performance limiting NO<sub>x</sub> emissions from industrial-commercial-institutional steam generating units.

Another NO<sub>x</sub> control process which is commercially available is selective noncatalytic reduction (SNR), a dry process involving a gas-phase reaction between NO<sub>x</sub> and injected ammonia without the use of a catalyst. Ammonia is injected directly into the furnace with the furnace temperature driving the reduction reactions. This process is more difficult to control and is less efficient than SCR. Most applications of SNR are retrofits on oil refinery process heaters. There have also been several commercial applications of SCR to industrial-commercial-institutional steam generating units firing both oil and natural gas. However, SCR and SNR entail considerable costs. Therefore, although SNR and SCR are considered demonstrated technologies, they were not chosen as bases for these standards.

**NO<sub>x</sub> Monitoring.** A variety of comments were received concerning continuous emission monitoring systems (CEMS) for NO<sub>x</sub>. Commenters suggested that steam generating units should not be required to install a NO<sub>x</sub> CEMS if during the 30-day performance test NO<sub>x</sub> emission levels are 10 to 30 percent below the applicable NO<sub>x</sub> emission limit. Other commenters maintained that continuous NO<sub>x</sub> monitoring was unnecessary for units regulated. Several comments stated that the cost of a CEMS is excessive for steam generating units having heat unit capacities less than 73 MW (250 million Btu/hour) and that these costs were underestimated in the proposed standard. One commenter suggested that conventional stack

testing be allowed as an alternative to continuous monitoring for natural gas- and oil-fired units with heat input capacities less than 73 MW (250 million Btu/hour).

After reviewing the comments, several alternative options for NO<sub>x</sub> emission monitoring were considered. Among the factors taken into consideration were the type of fuel being burned, the size of the steam generating unit, the type of NO<sub>x</sub> control technology required, and associated cost effectiveness. The NO<sub>x</sub> monitoring requirements in the promulgated standard have been revised from those proposed to reflect the results of these analyses.

Under the proposed standard, CEMS were required on all units subject to the NO<sub>x</sub> standards. However, an option was provided allowing units having an annual capacity factor for regulated fuels of less than 30 percent to monitor steam generating unit operating conditions indicative of NO<sub>x</sub> emissions in lieu of continuous monitoring of NO<sub>x</sub> emissions. Under the promulgated standards, CEMS continue to be required; however, the optional monitoring of operating conditions in place of CEMS has been revised. Under the promulgated standards, the operating condition monitoring option is available for units having less than 73 MW (250 million Btu/hour) heat input capacity and which are combusting natural gas, distillate oil, or low nitrogen content residual oil (less than 0.30 weight percent nitrogen).

This data would be used to judge proper unit operations and need for a compliance test, but it would not be used for direct enforcement of the standard. For units: (1) Having heat input capacities greater than 73 MW (250 million Btu/hour) or (2) any units combusting coal or high nitrogen content residual oil (greater than 0.30 weight percent nitrogen) greater than 29 MW (100 million Btu/hour) heat input capacity, the CEMS, as proposed, remains the reference test method and the data are used to determine compliance with the NO<sub>x</sub> standard. However, it should be noted that under the General Provisions [40 CFR 60.13(i)], any source, including for example natural gas-fired units larger than 73 MW (250 million Btu/hour) heat input capacity, can apply for approval to monitor alternative parameters which can be used to predict NO<sub>x</sub> emissions in place of direct monitoring of NO<sub>x</sub> emissions by CEMS. If an application to measure alternative parameters is approved, the predicted NO<sub>x</sub> emission rates derived from the parametric data will be used to determine direct

compliance with the NO<sub>x</sub> standard just as if monitoring by CEMS had occurred.

Under the promulgated standards, all steam generating units subject to the NO<sub>x</sub> emission limits are required to conduct an initial 30-day performance test using a CEMS. This test will serve as the initial performance test required under § 60.8. Thereafter, (1) all steam generating units greater than 73 MW (250 million Btu/hour) heat input capacity, and (2) all steam generating units greater than 29 MW (100 million Btu/hour) heat input capacity firing coal or high nitrogen residual oil, must install and operate a CEMS [unless approval to monitor operating conditions under § 60.13(i) has been obtained]. The data from the CEMS (or from monitoring operating conditions, as applicable) are used to determine a 30-day rolling average NO<sub>x</sub> emission rate calculated as the arithmetic average of the hourly NO<sub>x</sub> values for the preceding 30 steam generating unit operating days. CEMS in these applications will be subject to the requirements set forth in 40 CFR Part 60 Appendix F, Procedure 1 when these requirements are promulgated. Appendix F, Procedure 1 will require the owner or operator of a CEMS to perform periodic accuracy and drift assessments of the system. For this class of steam generating units, the NO<sub>x</sub> emission data (or the predicted NO<sub>x</sub> emission rates from the parametric data) are used to determine compliance with the NO<sub>x</sub> standards and a quarterly compliance report is required.

For steam generating units with heat input capacities of less than 73 MW (250 million Btu/hour) firing natural gas, distillate oil, or low nitrogen content residual oil, a CEMS is also used to conduct the initial 30-day compliance test after unit startup. Thereafter, as stated above, the owner or operator of the facility can elect to install and operate: (1) A CEMS, or (2) a system to monitor steam generating unit operating conditions and predict NO<sub>x</sub> emissions rates. The CEMS data or the predicted NO<sub>x</sub> emission rates derived from the optional operating conditions monitoring data will be used to prepare excess emission reports which are required to be submitted on a semiannual basis. Additionally, a quarterly excess emissions report is required for any quarter that any excess emissions occur. Because a CEMS in this application is not used for direct compliance, the requirements of 40 CFR Part 60 Appendix F, Procedure 1 do not apply. However, a 30-day performance test using CEMS may be required by the appropriate enforcement authority at any time.

If operating conditions are monitored in lieu of installing a CEMS, operating conditions such as steam generating unit load, O<sub>2</sub> levels, or degree of staging (i.e., ratio between primary air and secondary air and/or tertiary air or flue gas recirculation rate) shall be used to predict NO<sub>x</sub> emission rates. Other steam generating unit operating conditions may also be monitored. The standards require that the owner or operator of a steam generating unit wishing to use the alternative monitoring procedure submit a plan to the Administrator along with the initial performance test report. The plan shall specify the conditions to be monitored, the variation expected in these conditions with operating load, the data to be used to determine that these conditions are indicative of NO<sub>x</sub> emission control, the relationship that will be used to predict NO<sub>x</sub> emission rates from the operating conditions that will be monitored, and the procedures and formats to be followed in monitoring and recordkeeping.

Manufacturers of steam generating units may develop and provide to steam generating unit owners, monitoring plans for common steam generating unit designs. These plans must also be supported by actual operating and emission data from the affected facility and would subsequently be submitted by the owner or operator of the steam generating unit. If approved, the owner or operator of the facility shall maintain records of the operating conditions, including steam generating unit load, identified in the plan. Monitoring data and predicted NO<sub>x</sub> emissions rates will be submitted in a quarterly excess emission report.

#### *Reporting*

All natural gas-, distillate oil-, residual oil-, and coal-fired steam generating units having heat input capacities greater than 73 MW (250 million Btu/hour) are required to use CEMS subject to Appendix F, Procedure 1, and are required quarterly compliance reports to allow direct enforcement of the NO<sub>x</sub> standards on a continuing basis. All coal-fired and high nitrogen content residual oil-fired steam generating units having heat input capacities greater than 29 MW (100 million Btu/hour) are also required to use CEMS subject to Appendix F, Procedure 1, and submit quarterly compliance reports to allow direct enforcement of the NO<sub>x</sub> standards on a continuous basis. Natural gas-, distillate oil-, and low nitrogen content residual oil-fired steam generating units having heat input capacities from 100 to 250 million Btu/hour are required to submit semiannual excess emission

reports; however, a quarterly excess emissions report is required for each quarter that excess emissions occur. Appendix F, Procedure 1 would not apply if CEMS are used on these units.

Under both the proposed and promulgated NO<sub>x</sub> standards, certain residual oils must be analyzed for nitrogen content. Specifically, steam generating units in the 29 to 73 MW (100 to 250 million Btu/hour) heat input capacity size range firing low nitrogen content residual oil must report fuel nitrogen content. If fuel analysis data are not reported the oil will be assumed to be high in nitrogen content and use of a CEMS subject to the requirements of Appendix F, Procedure 1 is required. The nitrogen content can be measured by the owner or operator of the steam generating unit using American Society for Testing and Materials Method D3431-80 (incorporated by reference—see § 60.17). Fuel specification data can be obtained from fuel suppliers and provided in place of on-site fuel sampling and analysis.

Several commenters claimed that small manufacturing facilities do not have personnel capable of operating, calibrating, and maintaining NO<sub>x</sub> CEMS. In response to this issue, owners and operators of steam generating units were surveyed to gather information concerning service personnel requirements associated with installation and operating of CEMS. The survey indicated that, in most cases, vendor training of plant personnel was provided on-site and typically lasted 1 day to 1 week. Also, a number of companies provide CEMS operating and maintenance services. The costs of employing outside specialists to provide routine service of NO<sub>x</sub> CEMS were calculated and incorporated into the NO<sub>x</sub> monitoring costs. The burden associated with installing, operating, and maintaining a NO<sub>x</sub> CEMS, whether through on-site training of plant personnel or through contracts with outside specialists, is reasonable.

It should be noted that small manufacturing facilities would be expected to use steam generating units having heat input capacities less than 73 MW (250 million Btu/hour). For units having heat input capacities less than 73 MW (250 million Btu/hour), only coal- and high nitrogen content residual oil-fired steam generating units must use a CEMS. For natural gas-, distillate oil-, or low nitrogen content residual oil-fired steam generating units having heat input capacities less than 73 MW (250 million Btu/hour), use of the process monitoring option would preclude the need for a CEMS.

One comment stated that the proposed data availability requirement is too lenient. The proposed standard would have allowed an affected facility 5 calendar days to initiate servicing of an out-of-service CEMS and 15 calendar days to return the monitor to service. The commenter recommended that 75 percent valid data be required for each 30-day period. Several other comments concerned the level of reliability of NO<sub>x</sub> CEMS.

In response to these comments, the standard has been changed to incorporate minimum data capture requirements. Minimum data capture requirements are necessary because monitors undergo periods of downtime and are not available 100 percent of the time. Minimum data capture requirements provide for downtime, but limit the amount of data permitted to be lost before supplemental sampling is required. The requirements provide the owner or operator with time to maintain and calibrate the CEMS, correct minor malfunctions, and, if necessary, arrange for supplemental sampling, while at the same time providing sufficient data for compliance determinations. Minimum data capture requirements also prevent the possibility of an affected facility operating for unreasonably long periods without collecting data.

Under the minimum data capture requirements, affected facilities are required to obtain at least 22 days of valid NO<sub>x</sub> emission data for every 30-day period, that is, 75 percent data capture. Well operated and maintained CEMS will routinely operate better than the proposed data requirements and supplemental sampling should rarely be required.

Supplemental sampling, if necessary to meet the minimum data requirements, can be achieved with a standby CEMS, Reference Method 7, Reference Method 7A, or other approved methods.

If the minimum amount of data is not obtained for any 30-day rolling average period, reasons for failure to obtain sufficient data and a description of corrective action taken must be included in the quarterly report, along with all the information needed to calculate the 30-day rolling average values according to Method 19, section 7.

The minimum CEMS data requirements are related to proper maintenance and operation of the CEMS, not whether NO<sub>x</sub> emission rates are calculated. In all cases, even if minimum data requirements are not met, a 30-day rolling average NO<sub>x</sub> emission rate is calculated using all available hourly NO<sub>x</sub> data to determine

continuous compliance or excess emissions, as applicable.

*Interpollutant Effects of NO<sub>x</sub> Control.* Several comments on the proposed NO<sub>x</sub> emission limits noted that application of combustion modification techniques such as LEA and SC could lead to an increase in emissions of other pollutants. Of particular concern are increased emissions of carbon monoxide (CO), particulate matter (PM), and hydrocarbons (HC).

Comments received on the interpollutant effects may have derived largely from concerns over the proposed standard for package steam generating units, which was based on LEA/SC technology. As discussed earlier in this preamble, the final standard applicable to package units is based on LEA rather than LEA/SC technology. The final standard for field-erected units is based on use of LEA/SC technology. As a result of this change in the standard, the analysis of the interpollutant effects of NO<sub>x</sub> controls focused on use of LEA in package steam generating units and on use of LEA/SC in field-erected units.

From a technical viewpoint, the greater the reduction in excess air, the greater the reduction in NO<sub>x</sub> emissions. It is also true, however, that at unreasonably low excess air levels, emissions of CO, PM, and HC can increase, indicating the onset of inefficient and unsafe combustion conditions. Under proper LEA operation, the excess air level is controlled to prevent operation at unacceptably low O<sub>2</sub> conditions that would result in an increase in emissions of CO, HC, or PM. Increases in emissions of these pollutants are associated with incomplete combustion. Increases in the CO emission level can indicate increases in emissions of other incomplete combustion products.

An analysis of CO emission data from package and field-erected units was undertaken to investigate the impact of the final standards on the emissions of incomplete combustion products. Under normal steam generating unit operating conditions, CO levels are maintained below 200 ppm. The use of unreasonably low excess air levels can result in CO concentrations exceeding 1,000 ppm, which is unacceptable.

For natural gas-fired steam generating units using LEA, carbon monoxide emission data were available from 5 tests on 1 natural gas-fired package unit having a heat input capacity of 42 MW (140 million Btu/hour). At operating O<sub>2</sub> levels ranging from 2 to 3 percent, which are representative of proper LEA operation, average CO levels remained less than 100 ppm representing

acceptable operation. As operating O<sub>2</sub> levels were reduced to 1 percent, the CO level reached 1,300 ppm.

For distillate oil-fired steam generating units using LEA, data were available from 1 test on 1 package unit having a heat input capacity of 29 MW (100 million Btu/hour). At an operating O<sub>2</sub> level of 2.5 percent, the average CO level was less than 50 ppm. No data were available for operation at O<sub>2</sub> levels less than 2.5 percent.

For residual oil-fired steam generating units using LEA, CO emissions data were available from 3 tests on 1 package unit having a heat input capacity of 29 MW (100 million Btu/hour). At operating O<sub>2</sub> levels ranging from 2 to 3 percent, average CO emissions were less than 50 ppm. No data were available for operation of O<sub>2</sub> levels less than 2 percent.

The review of these data indicates that within proper LEA limits associated with good steam generating unit operation, LEA operation does not increase emissions of CO outside of normal operating conditions. Therefore, LEA applied to package steam generating units does not lead to incomplete combustion products (CO, HC, PM, etc.).

Under the 1971 NO<sub>x</sub> standards (Subpart D) and under the final standards being adopted today, SC will be used as a NO<sub>x</sub> control technique for field-erected units firing high nitrogen content fuels such as coal or residual oil. Another data review focused on CO emissions from field-erected oil- and coal-fired units. Baseline emissions when SC (overfire air) was not in use were compared to emissions during SC operation.

For six residual oil-fired field-erected units having heat input capacities greater than 73 MW (250 million Btu/hour), emissions of CO averaged about 100 ppm without SC in use. With SC in use CO levels averaged about 100 ppm. There was no incremental increase in CO emissions due to SC for the field-erected units firing residual oil.

For two pulverized coal-fired field-erected units having heat input capacities greater than 73 MW (250 million Btu/hour), emissions of CO averaged less than 100 ppm without SC in use. With SC in use, CO emissions averaged less than 100 ppm. There was no incremental increase in CO emissions due to SC for the field-erected units firing coal.

Similar to LEA, the review of LEA/SC applications to field-erected units also concluded that no noticeable increases in emissions of incomplete combustion products occurred.

In summary, the final standards are based on the application of LEA to package steam generating units, and the application of LEA/SC to field-erected units. The application of these technologies will not result in increases in emissions of incomplete combustion products.

#### *National Impacts*

*Environmental Impacts.* Several commenters stated that the emission reductions associated with the proposed NSPS for industrial-commercial-institutional steam generating units have been overestimated. Specifically, the commenters believe that the number of new steam generating units projected for construction during the first 5 years of the standard is too high. Also, the commenters stated that the emission levels that would occur in the absence of an NSPS have been exaggerated.

Over 600 new coal-, oil-, and natural gas-fired industrial-commercial-institutional steam generating units were projected to be constructed over the 5-year period 1985-1990. These projected new units were used in estimating the national impacts of the standards based on the Industrial Fuel Choice Analysis Model (IFCAM), which relies on inputs drawn from the Midterm Energy Forecasting System (MEFS) developed by the Energy Information Administration of the Department of Energy. These estimates included a breakout of industrial demands for these fossil fuels by region and by fuel type. Additionally, 120 new wood- and municipal solid waste-fired steam generating units are projected to be built during this same time period. The estimated growth of wood- and municipal solid waste-fired units is based on historical steam generating unit population growth data, as well as on growth projections by vendor and other industry sources. In combination, 720 coal, oil, natural gas, wood and municipal-type solid waste units are projected to be covered by the standard in its first 5 years of application.

These projections are considered to be reasonable estimates of the number of new steam generating units to be constructed during the first 5 years of these standards. If this number proves to be overestimated, as contended by the commenters projected reductions in particulate matter and NO<sub>x</sub> emissions may be diminished, but the costs of the standards on a nationwide basis will also be proportionally reduced. The relationship between total national costs and total national emission reductions (national cost effectiveness) would remain basically unaffected by

the change in the number of new steam generating units.

The baseline used to calculate the emission reductions achieved under the particulate matter and NO<sub>x</sub> emission limits for steam generating units is also derived from the IFCAM model. The inputs to the model which form the baseline are the individual State implementation plan (SIP) regulations and the Subpart D NSPS which were adopted in 1971. For nonfossil fuel-fired steam generating units, the same approach as discussed above was used, but the calculations were done manually because IFCAM only analyzes impacts from firing fossil fuels (coal, oil and natural gas). As discussed in the preamble to the proposed standards, the use of SIP regulations and Subpart D rather than PSD permit requirements to determine the baseline emission levels may result in the impacts of the standards both in emission reductions and costs being somewhat overstated. However, the relative assessment of the costs of the standard relative to the emission reductions, on a nationwide basis, would not be affected by the baseline values chosen for comparison. Additionally, if PSD requirements were used as a baseline it would make the analysis less accurate and more difficult because it would require an estimate to be made of what PSD permit requirements would be with and without an NSPS in place. SIP regulations do not have to be based on assumptions and are clearly defined.

Another commenter stated that the proposed standards would have the effect of discouraging the retirement of old, less efficient steam generating units with higher emissions and delaying their replacement with new, energy efficient units with lower emissions. The particulate matter and NO<sub>x</sub> standards being adopted today are not expected to have a significant effect on the retirement of older steam generating units. Other factors, such as the cost of fuels, the physical condition of the steam generating unit, and the steam requirements of the industrial processes being served by the unit will play a much greater role in the decision to replace a steam generating unit than will the standards being adopted today.

Other commenters stated that the particulate matter emission reductions achieved through the proposed standards would be insignificant, constituting only a few tenths of a percent of the total national particulate matter and NO<sub>x</sub> emissions. As a consequence, these commenters suggest that the proposed standards are unnecessary.

As discussed above, the category of industrial-commercial-institutional steam generating units has been listed as a "significant contributor" under Section 111 of the Clean Air Act. Section 111 requires promulgation of standards reflecting best demonstrated technology for this source category. Industrial-commercial-institutional steam generating units, as a source category, are the second largest source of particulate matter and NO<sub>x</sub> emissions in the nation, ranking only behind utility power plant steam generating units. Further, they are the largest source of particulate matter emissions listed in the NSPS priority list adopted in 1980. In 1990, new steam generating units are projected to emit 49,000 Mg (54,000 tons) of particulate matter per year in the absence of these standards. More than 16,000 Mg to 22,000 Mg (17,000 tons to 24,000 tons), of particulate matter reduction are expected to result from today's standards. In addition, the steam generating units being regulated are major sources of particulate matter emissions, in many cases, individually emitting 90 Mg (100 tons) or more of particulate matter per year. For these reasons, particulate matter emissions from industrial-commercial-institutional steam generating units are appropriate sources for regulation under Section 111 of the Clean Air Act.

Industrial-commercial-institutional steam generating units are also the second highest ranking source category for NO<sub>x</sub> emissions on the 1980 priority list of source categories not already regulated by NSPS. In 1990, new steam generating units are projected to emit 77,000 Mg (85,000 tons) of NO<sub>x</sub> per year in the absence of the standards. Of this amount, more than 21,000 Mg to 24,000 Mg (23,000 tons to 26,000 tons), are expected to be eliminated due to the NO<sub>x</sub> standards adopted today. In addition, the steam generating units being regulated are major sources of NO<sub>x</sub>, in many cases individually emitting 90 Mg (100 tons) or more of NO<sub>x</sub> per year. For these reasons, NO<sub>x</sub> emissions from industrial-commercial-institutional steam generating units are appropriate sources for regulation under Section 111 of the Clean Air Act.

Three commenters urged that a more thorough assessment be performed of the relative impacts of the proposed standards compared to existing State regulatory programs. The commenters questioned whether the proposed NSPS will result in any significant improvement in air quality.

The adoption of these standards will result in improvements in air quality in two respects. First, it is projected that

the standards will result in a reduction in particulate matter and NO<sub>x</sub> emissions of more than 16,000 Mg to 22,000 Mg (17,000 tons to 24,000 tons) and 21,000 Mg to 24,000 Mg (23,000 tons to 26,000 tons) per year, respectively, from a baseline emission level estimated from current State and Federal regulations. Second, today's standards will assure that the best demonstrated control technology is applied to all new units and that air pollution resulting from future growth will be minimized. To the extent that some States may already require a similar level of control, the estimates of emission reductions, as well as the estimates of the costs and economic impacts of emission control, would be diminished.

**Energy Impacts.** Several commenters stated that the proposed standards do not promote energy efficiency. Specifically, they believe that the standards will discourage the preheating of combustion air, will make it difficult to operate steam generating units at low excess air levels when using staged combustion, and will restrict the use of alternative fuels, such as gaseous and liquid byproducts/wastes.

The standards are not expected to have an adverse effect on the use of energy efficient steam generating unit technologies. As discussed above, the NO<sub>x</sub> standards adopted today for coal-fired steam generating units can be achieved whether the units use combustion air preheat or not. Natural gas- and oil-fired steam generating units, which are typically package units, are not commonly designed to include combustion air preheat. If greater efficiency is desired, steam generating unit feedwater preheat can be substituted for combustion air preheat.

Operation at LEA levels is included in the basis for each of the NO<sub>x</sub> emission limits being adopted today. LEA operation applied to any facility affected by these standards will improve energy efficiency. Additionally, available data show that those facilities which also use SC for NO<sub>x</sub> emission control can use that technology in combination with LEA while achieving efficient steam generating unit operation.

Finally, alternative fuels are neither encouraged nor discouraged as steam generating unit fuels by the particulate matter or NO<sub>x</sub> standards being adopted today. Existing differences in terms of either costs or availability will not be affected by these standards.

**Economic Impacts.** Commenters stated that the financially depressed steam generating unit and burner markets will be subjected to excessive economic risks and further market

decline if the standards force the premature use of SC controls on package natural gas- and distillate oil-fired steam generating units.

As discussed previously, the proposed NO<sub>x</sub> emission limit of 43 ng/J (0.10 million Btu/hour) heat input for package natural gas- and distillate oil-fired steam generating units with high heat release rates has been revised. As adopted today, the emission limit for these units will be 86 ng/J (0.20 lb/million Btu) heat input. This revised standard is based on the use of LEA to control NO<sub>x</sub> emissions, rather than on the use of SC control technology. With this revision, the concerns expressed by the commenters concerning the widespread use of SC technology and the effects of the standards on package steam generating units have been addressed.

#### *Other Considerations*

**Proration of Emission Limits.** One commenter stated that steam generating units capable of firing multiple fuels are designed according to the combustion requirements of the most difficult fuel to be fired, and that NO<sub>x</sub> emission control techniques are compromised in this situation. Therefore, the commenter stated that the NO<sub>x</sub> limits applicable to steam generating units firing mixtures of fossil fuels should not be based on the achievable emission levels for individual fuels in the mixture.

As mentioned above, LEA and SC are the two basic combustion modification techniques which have formed the basis of the NO<sub>x</sub> standards for this source category. LEA is effective in controlling NO<sub>x</sub> formation during the combustion of fuels with low nitrogen contents, such as natural gas. SC is effective in controlling NO<sub>x</sub> formation during the combustion of high nitrogen content fuels, such as coal. These two techniques are compatible and may be used simultaneously on the same steam generating unit to control NO<sub>x</sub> emissions from the firing of mixtures of high nitrogen and low nitrogen content fossil fuels. Because of this compatibility and because the effectiveness of each technique is related to the amount of each fuel fired, NO<sub>x</sub> emission limits from the firing of mixtures of fossil fuels can be controlled to levels proportionate to the emission levels achievable for each fossil fuel alone. Therefore, the emission limit for steam generating units firing mixtures of fossil fuels is based on the prorated contribution of each fuel to the total heat input to the unit.

**Emission Credits for Cogeneration.** Several commenters urged the inclusion in the standard of emission credits for cogeneration steam generating units

used in cogeneration systems. These commenters stated that the granting of emissions credits to industrial-commercial-institutional steam generating units which also generate electricity (cogenerate) would encourage the development of cogeneration, resulting in regional decreases in fuel usage and emissions of particulate matter and NO<sub>x</sub>.

As stated in the preamble to the proposed rule, these standards are not intended to either encourage or discourage cogeneration systems. Emission credits for cogeneration systems are not being allowed for the following reasons. First, an emission limit for cogeneration facilities which included a emission credit would not reflect the best technological system of emission control, as required by Section 111 of the Clean Air Act. As required by the Act, these standards are based on technological systems that have been determined to offer the greatest emission reductions achievable at reasonable cost and energy impacts. To grant emission credits for cogeneration facilities would allow the use of less than best demonstrated technology.

Second, the construction and operation of cogeneration systems does not guarantee net emission reductions in all cases. In those cases where the cogeneration unit would meet more restrictive emission standards than the displaced utility unit, emission reductions would occur. However, in those cases where the cogeneration system fires fuel which is inherently more polluting than the fuels fired in the utility steam generating unit being displaced, or where the cogeneration facility is subject to a higher emission limit, cogeneration units may result in a net increase rather than a net decrease in emissions.

Third, the implementation of an emission credit would not result in cost savings in proportion to the emission increases that would result. For example, a 15 percent cogeneration credit applied to coal-fired steam generating units would raise the applicable particulate matter emission limit from 22 ng/J (0.05 lb/million Btu) heat input to 25 ng/J (0.06 lb/million Btu) heat input. The incremental cost-effectiveness of this reduction in the stringency of the standard is \$2,230/Mg (\$2,030/ton) for a coal-fired steam generating unit controlled by an ESP. For a coal-fired steam generating unit controlled by a fabric filter, there is no change in cost effectiveness resulting from the recognition of a credit for cogeneration. For wood- or solid waste-fired steam generating units, a 15

percent credit would raise the particulate matter emission limit from 43 ng/J (0.10 lb/million Btu) heat input to 49 ng/J (0.12 lb/million Btu) heat input. The incremental cost-effectiveness of this reduction in stringency for a solid waste-fired steam generating unit controlled by an ESP is less than \$1,650/Mg (\$1,500/ton). In summary, there would be no significant difference in the design or in the cost of an ESP or fabric filter applied to a cogeneration unit whether the emission credit was granted or not.

For cogeneration units subject to emission limits for NO<sub>x</sub>, combustion modification techniques can be implemented at little or no cost to the steam generating unit owner or operator. No significant economic benefits would result from allowing such a credit against the NO<sub>x</sub> emission limit. Credits would, however, allow for NO<sub>x</sub> emission increases with no cost savings.

Under the final standards, cogeneration units are neither discouraged or encouraged and, therefore, emission credits for cogeneration steam generating units are not granted under this standard for the reasons discussed above. Any site-specific benefits that may occur through cogeneration can be considered in the Prevention of Significant Deterioration (PSD) program which specifically addresses the site-specific impacts of air pollution sources.

**Fluidized Bed Combustion.** Several commenters questioned if the proposed standards would apply to fluidized bed combustion (FBC) units, and requested clarification on the applicable NO<sub>x</sub> emission limit. Under the proposed standard, FBC units are subject to a NO<sub>x</sub> emission limit of 258 ng/J (0.60 lb/million Btu) heat input [§ 60.43b(a)(3)(ii)]. The bases for this emission limit included NO<sub>x</sub> emissions data presented in the "Technology Assessment Report for Industrial Boiler Applications: Fluidized Bed Combustion" (EPA-600/7-79-178e), "Fossil Fuel-Fired Industrial Boilers—Background Information Volume 1: Chapters 1-9" (EPA-450/3-82-006a), and "Fossil Fuel-Fired Industrial Boilers—Background Information Volume 2: Appendices" (EPA-450/3-82-006b).

A review of these data confirmed that an emission limit of 260 ng/J (0.60 lb/million Btu) heat input is appropriate for FBC units. Therefore, under the promulgated standard, FBC units are subject to a NO<sub>x</sub> emission limit of 260 ng/J (0.60 lb/million Btu) heat input.

**Reference Method 5B.** Currently, the performance of particulate matter

control techniques is measured with Reference Method 5. However, Reference Method 5 has been found to be subject to interference by sulfur trioxide (SO<sub>3</sub>) when measurements are taken downstream of a wet flue gas desulfurization (FGD) system. The SO<sub>3</sub> effectively increases measured particulate matter emissions above true values. As a result, a new reference method is under development—Reference Method 5B—that greatly reduces the problem of SO<sub>3</sub> interference. This new reference method was proposed on May 29, 1985 (50 FR 21863) and as discussed in the proposal would apply to Subpart Db.

Reference Method 5B consistently results in equivalent or lower particulate matter emission measurements, with the most significant reduction being observed when measuring particulate matter emissions in gases containing high SO<sub>3</sub> levels. A comparative analysis shows a 35 to 50 percent reduction in measured particulate matter emissions when Reference Method 5B is used in place of Reference Method 5 to measure the performance of ESP's when firing fuels which result in high concentrations of SO<sub>3</sub> in the flue gas.

At this time the standards being promulgated today do not include Reference Method 5B because Reference Method 5B has not yet been adopted. However, when Reference Method 5B is adopted it will be an applicable test method under Subpart Db for measuring particulate matter emissions downstream from a wet FGD system.

Similarly, the standards being promulgated today do not require compliance with Appendix F, Procedure 1. When these new quality assurance procedures are finalized, they will apply to units covered under this subpart.

**Duct Burners.** Commenters noted that duct burners associated with steam generating units used in combined cycle gas turbine systems may have difficulty meeting a 43 ng/J (0.10 lb/million Btu) heat input standards under all load conditions. Duct burners are smaller package systems and generally have heat input capacities less than 73 MW (250 million Btu/hour). NO<sub>x</sub> formation in duct burners is influenced by the temperature and O<sub>2</sub> content of the gas turbine exhaust. The gas turbine exhaust used for combustion air is about 760°C (1400°F), which would suggest a high potential for thermal NO<sub>x</sub> formation. However, the turbine exhaust gases are very low in O<sub>2</sub> content, which would tend to reduce the formation of thermal NO<sub>x</sub>.

Based on a review of the NO<sub>x</sub> emissions data available from duct

burners, the final standards limiting NO<sub>x</sub> emissions from duct burners firing natural gas and distillate oil is established as 86 ng/J (0.20 lb/million Btu) heat input and 170 ng/J (0.40 lb/million Btu) heat input when residual oil is combusted. Following a review of the data, the proposed standards appeared overly restrictive and may not be achievable over all operating conditions. Under the final standards, owners and operators of duct burners are also required to conduct a performance test when requested by the Administrator. However, CEMS are not required and compliance testing on a continuous basis is not specified.

Owners and operators of duct burners are also required to conduct a performance test. Reference Method 20, which is the reference method for determining NO<sub>x</sub> emissions from stationary gas turbines, will be used to monitor NO<sub>x</sub> emissions during the initial and subsequent performance tests.

For the performance test, NO<sub>x</sub> emissions will be monitored simultaneously at the gas turbine exhaust and steam generating unit outlet. The average NO<sub>x</sub> concentration measured at the gas turbine exhaust location will be subtracted from the average NO<sub>x</sub> concentration measured at the steam generating unit outlet in order to determine the incremental increase of NO<sub>x</sub> emissions attributable to the duct burner.

In order to test the steam generating unit at maximum heat input capacity, the duct burner will be operated at 100 percent load, and the gas turbine will be operated at the rate needed to achieve maximum steam production.

**Background Information Document.** The background information documents (BID) for the standards being adopted today may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone number (919) 541-2777. Please refer to EPA-450/382-82-006a "Fossil Fuel-Fired Industrial Boilers—Background Information Volume 1: Chapters 1-9, EPA-450/3-006b "Fossil Fuel-Fired Industrial Boilers—Background Information Volume 2: Appendices," EPA-450/3-82-007 "Nonfossil Fuel-Fired Industrial Boilers—Background Information," and EPA-450/3-86-003 "Fossil and Nonfossil Fuel-Fired Industrial Boilers—Background Information for Promulgated PM and NO<sub>x</sub> Standard Volume 3." Volumes 1 and 2 of the BID contain technical data that served as the bases of the proposal. Volume 3 of the BID contains: (1) A summary of all the public comments made on the proposed standards, and (2) the final Environmental Impact

Statement, which summarizes the impacts of the final standards.

**Docket.** A docket, number A-79-02, containing information considered in development of the promulgated standards, is available for public inspection between 8:00 a.m. and 4:00 p.m., Monday through Friday, at the Central Docket Section (LE-131), West Tower Lobby, Gallery 1, 401 M Street, SW., Washington, DC 20460. A reasonable fee may be charged for copying.

#### Administrative

The docket is an organized and complete file of all the information considered in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking process. The docketing system is intended to allow members of the public and affected industries to identify and locate documents readily and to participate effectively in the rulemaking process. The statements of basis and purpose of the proposed and promulgated standards, the responses to significant comments, and the contents of the docket (except for interagency review materials) will serve as the record in case of judicial review [Section 307(d)(7)(A)].

The effective date of regulation is November 25, 1986. Section 111 of the Clean Air Act provides that standards of performance or revisions thereof become effective upon promulgation and apply to affected facilities for which construction or modification was commenced after the date of proposal (49 FR 25102, June 19, 1984).

As prescribed by section 111, the promulgation of these standards is based on the Administrator's determination that industrial-commercial-institutional steam generating units contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare. In accordance with Section 117 of the Act, publication of these promulgated standards was preceded by consultation with appropriate advisory committees, independent experts, and Federal departments and agencies.

This regulation will be reviewed 4 years from the date of promulgation as required by the Clean Air Act. This review will include an assessment of such factors as the need for integration with other programs, the existence of alternative methods, enforceability, improvements in emission control technology, and reporting requirements.

Section 317 of the Clean Air Act requires the Administrator to prepare an economic impact assessment for any new source standard of performance

promulgated under section 111(b) of the Act. An economic impact assessment was prepared for this regulation and for other regulatory alternatives. All aspects of the assessment were considered in the formulation of the standards to ensure that cost was carefully considered in determining the best demonstrated technology. Portions of the economic impact assessment are included in the BID and additional information is included in the Docket.

The information collection requirements associated with this regulation (Sections 60.7, 60.11, 60.13, 60.44b, 60.45b, 60.46b) have been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq* and have been assigned OMB control number 2060-0072.

Under Executive Order 12291, the Administrator is required to judge whether a regulation is a "major rule" and therefore subject to the requirements for preparation of a regulatory impact analysis (RIA). It has been determined that this regulation would result in none of the adverse economic effects set forth in section 1 of the Order as grounds for finding a regulation to be a "major rule." The industry-wide increase in annualized costs in the fifth year after the standards would go into effect would be less than \$40 million, less than the \$100 million established as the first criterion for a major regulation in the Order. The projected average increase in product prices of no more than 0.05 percent associated with the standards would not be considered a "major increase in costs or price" specified as the second criterion in the Order. The economic analysis of the standards' effects on the industry did not indicate any significant adverse effects on competition, investment, productivity, employment, innovation, or the ability of the U.S. firms to compete with foreign firms (the third criterion in the Order). Therefore, this regulation is not a "major rule" under Executive Order 12291. This rule has been submitted to OMB for review under Executive Order 12291.

The Regulatory Flexibility Act of 1980 requires the identification of potentially adverse impacts of Federal regulations upon small business entities. The Act specifically requires the completion of a Regulatory Flexibility Analysis in those instances where small business impacts are possible. Because these standards impose no adverse economic impacts on small businesses, a Regulatory Flexibility Analysis has not been conducted.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that the proposed rule will not have a significant economic impact on a substantial number of small entities.

#### List of Subjects in 40 CFR Part 60

Air pollution control,  
Intergovernmental relations, Reporting  
and recordkeeping requirements,  
Incorporation by reference.

Dated: October 1, 1986.

Lee M. Thomas,  
*Administrator.*

### PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for Part 60 continues to read as follows:

Authority: 42 U.S.C. 7411, 7414 and 7601(a).

2. 40 CFR Part 60 is amended by adding a new Subpart Db consisting of §§ 60.406 through 60.49b as follows:

#### Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

Sec.

- 60.40b Applicability and definition of affected facility.
- 60.41b Definitions.
- 60.42b [Reserved]
- 60.43b Standard for particulate matter.
- 60.44b Standard for nitrogen oxides.
- 60.45b [Reserved]
- 60.46b Compliance and performance testing for particulate matter and nitrogen oxides.
- 60.47b [Reserved]
- 60.48b Emission monitoring for particulate matter and nitrogen oxides.
- 60.49b Reporting and recordkeeping requirements.

#### Subpart Db—Standards of Performance for Industrial- Commercial-Institutional Steam Generating Units

##### § 60.40b Applicability and definition of affected facility.

(a) The affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 19, 1984, and which has a heat input capacity from fuels combusted in the steam generating unit of more than 29 MW (100 million Btu/hour), except as provided under paragraphs (b) through (f) of this section.

(b) Coal-fired steam generating units meeting both the applicability requirements under this subpart and the applicability requirements under Subpart D (Standards of performance for fossil fuel-fired steam generators; § 60.40) are subject to the particulate matter and nitrogen oxides standards

under this subpart and the sulfur dioxide standards under Subpart D (§ 60.43).

(c) Oil-fired steam generating units meeting both the applicability requirements under this subpart and the applicability requirements under Subpart D (Standards of performance for fossil fuel-fired steam generators; § 60.40) are subject to the nitrogen oxides standards under this subpart and the sulfur dioxide and particulate matter standards under Subpart D (§ 60.42 and § 60.43).

(d) Steam generating units meeting the applicability requirements under this subpart and the applicability requirements under Subpart J (Standards of performance for petroleum refineries; § 60.104) are subject to the particulate matter and nitrogen oxides standards under this subpart and the sulfur dioxide standards under Subpart J (§ 60.104).

(e) Steam generating units meeting both the applicability requirements under this subpart and the applicability requirements under Subpart E (Standards of performance for incinerators; § 60.50) are subject to the nitrogen oxides and particulate matter standards under this subpart.

(f) Steam generating units meeting the applicability requirements under Subpart Da (Standards of performance for electric utility steam generating units; § 60.40a) are not subject to this subpart.

##### § 60.41b Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in Subpart A of this part.

"Annual capacity factor" means the ratio between the actual heat input to a steam generating unit from the fuels listed in § 60.43b(a) or § 60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours at the maximum steady state design heat input capacity.

"Byproduct/waste" means any liquid or gaseous substance produced at chemical manufacturing plants or petroleum refineries, except natural gas, distillate oil, or residual oil, which is combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purposes of this subpart.

"Chemical manufacturing plants" means industrial plants which are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 28.

"Coal" means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388-77, Standard Specification for Classification of Coals by Rank (incorporated by reference—see § 60.17). Coal-derived synthetic fuels, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures and coal-water mixtures, are included in this definition for the purposes of this subpart.

"Cogeneration system" means a power system which simultaneously produces both electrical (or mechanical) and thermal energy from the same energy source.

"Combined cycle system" means a system where a gas turbine provides exhaust gas to a heat recovery steam generating unit.

"Distillate oil" means fuel oils which contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oils number 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils (incorporated by reference—see § 60.17).

"Duct burner" means a device which combusts fuel and which is placed in the exhaust duct of a stationary gas turbine to allow the firing of additional fuel before the exhaust gas enters a heat recovery steam generating unit.

"Federally enforceable" means all limitations and conditions which are enforceable by the Administrator, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within any applicable State Implementation Plan, and any permit requirements established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.18 and 40 CFR 51.24.

"Fluidized bed combustion steam generating unit" means a device wherein fuel and solid sorbent are distributed onto or into a bed, or series of beds, of aggregate for combustion and these materials together with solid products of combustion are forced upward in the device by the flow of combustion air and the gaseous products of combustion.

"Full capacity" means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.

"Heat input" means heat derived from combustion of fuel in a steam generating unit and does not include the heat input from preheated combustion air, recirculated flue gases, or gas turbine exhaust gases.

"Heat release rate" means the steam generating unit design heat input capacity (in MW or Btu/hour) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

"Heat transfer medium" means any material which is used to transfer heat from one point to another point.

"High heat release rate" means a heat release rate greater than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>).

"Lignite" means a type of coal classified as lignite A or lignite B by the American Society of Testing and Materials in ASTM D388-77, Standard Specification for Classification of Coals by Rank (incorporated by reference—see § 60.17).

"Low heat release rate" means a heat release rate of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hour-ft<sup>3</sup>) or less.

"Mass-feed stoker steam generating unit" means a steam generating unit where solid fuel is introduced directly into a retort or is fed directly onto a grate where it is combusted.

"Maximum heat input capacity" means the ability of a steam generating unit to combust a stated maximum amount of fuel on a steady state basis, as determined by the physical design and characteristics of the steam generating unit.

"Municipal-type solid waste" means refuse, more than 50 percent of which is municipal-type waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as glass and rock.

"Natural gas" means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal hydrocarbon constituent is methane.

"Oil" means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil.

"Petroleum refinery" means industrial plants which are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 29.

"Process heater" means a device which is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

"Pulverized coal-fired steam generating unit" means a steam generating unit in which pulverized coal

is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units.

"Residual oil" means crude oil, fuel oils number 1 and 2 which have a nitrogen content of greater than 0.05 weight percent, and all fuel oils number 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils (incorporated by reference—see § 60.17).

"Spreader stoker steam generating unit" means a steam generating unit in which solid fuel is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

"Steam generating unit" means a device which combusts any fuel or byproduct/waste to produce steam or to heat water of any other heat transfer medium. This term includes any municipal-type waste incinerator with a heat recovery steam generating unit or any steam generating unit which combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters.

"Steam generating unit operating day" means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

"Wet scrubber system" means any emission control device which mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter or sulfur dioxide.

"Wood" means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including, but not limited to, sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

#### § 60.42b [Reserved]

#### § 60.43b Standard for particulate matter.

(a) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility which combusts coal or combusts mixtures of coal with other fuels, shall cause to be discharged into the atmosphere from that affected

facility any gases which contain particulate matter in excess of the following emission limits:

(1) 22 nanograms per joule (0.05 lb/million Btu) heat input;

(i) If the affected facility combusts only coal, or

(ii) If the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 nanograms per joule (0.10 lb/million Btu) heat input if the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels greater than 10 percent (0.10) and is subject to a Federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(3) 86 nanograms per joule (0.20 lb/million Btu) heat input if the affected facility combusts coal or coal and other fuels and

(i) Has an annual capacity factor for coal or coal and other fuels of 30 percent (0.30) or less,

(ii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less,

(iii) Has a Federally enforceable requirement limiting operation of the affected facility to an annual capacity factor 30 percent (0.30) or less for coal or coal and other solid fuels, and

(iv) Construction of the affected facility commenced after June 19, 1984 and before November 25, 1986.

(b) On or after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility which combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases which contain particulate matter in excess of the following emission limits:

(1) 43 nanograms per joule (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood.

(2) 86 nanograms per joule (0.20 lb/million Btu) heat input if

(i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood,

(ii) Is subject to a Federally enforceable requirement limiting operation of the affected facility to an annual capacity factor 30 percent (0.30) or less for wood, and

(iii) Has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less.

(c) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility which combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases which contain particulate matter in excess of the following emission limits:

(1) 43 nanograms per joule (0.10 lb/million Btu) heat input;

(i) If the affected facility combusts only municipal-type solid waste, or

(ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 86 nanograms per joule (0.20 lb/million Btu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and

(i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less,

(ii) has a maximum heat input capacity of 73 MW (250 million Btu/hour) or less,

(iii) Has a Federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) for municipal-type solid waste, or municipal-type solid waste and other fuels, and

(iv) Construction of the affected facility commenced after June 19, 1984 but before November 25, 1986.

(d) For the purposes of this section, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum design heat input capacity.

(e) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility subject to the particulate matter emission limits under paragraphs (a), (b) or (c) of this section shall cause to be discharged into the atmosphere any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

#### § 60.44b Standard for nitrogen oxides.

(a) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility subject to the provisions of this section which combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides in excess of the following emission limits:

[Figures in parentheses represent lb/million Btu heat input]

Fuel/Steam generating unit type	Nitrogen oxide <sup>1</sup>
(1) Natural gas and distillate oil, except (4):	
(i) Low heat release rate.....	43(0.10)
(ii) High heat release rate.....	86(0.20)
(2) Residual oil:	
(i) Low heat release rate.....	130(0.30)
(ii) High heat release rate.....	170(0.40)
(3) Coal:	
(i) Mass-feed stoker.....	210(0.50)
(ii) Spreader stoker and fluidized bed combustion.....	260(0.60)
(iii) Pulverized coal.....	300(0.70)
(iv) Lignite, except (v).....	260(0.60)
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace.....	340(0.80)
(vi) Coal-derived synthetic fuels.....	210(0.50)
(4) Duct burner used in a combined cycle system:	
(i) Natural gas and distillate oil.....	86(0.20)
(ii) Residual oil.....	170(0.40)

<sup>1</sup> Emission limits nanograms per joule heat input.

(b) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility which simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides in excess of a limit determined by use of the following formula:

$$E_{NOx} = [(EL_{No} \times H_{No}) + (EL_{To} \times H_{To}) + (EL_c \times H_c)] / H_t$$

where:

$E_{NOx}$  is the nitrogen oxides emission limit,

$EL_{No}$  is the appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil,

$H_{No}$  is the heat input from combustion of natural gas or distillate oil,

$EL_{To}$  is the appropriate emission limit from paragraph (a)(2) for combustion of residual oil,

$H_{To}$  is the heat input from combustion of residual oil,

$EL_c$  is the appropriate emission limit from paragraph (a)(3) for combustion of coal,

$H_c$  is the heat input from combustion of coal, and

$H_t$  is the total heat input to the steam generating unit from combustion of coal, oil, and natural gas.

(c) On and after the date on which the initial performance test is completed or

is required to be completed under § 60.8 of this part, whichever comes first, no owner or operator of an affected facility which simultaneously combusts coal or oil, or a mixture of these fuels with natural gas, and wood, municipal-type solid waste, or any other fuel shall cause to be discharged into the atmosphere any gases which contain nitrogen oxides in excess of the emission limit for the coal or oil, or mixture of these fuels with natural gas combusted in the affected facility, as determined pursuant to paragraph (a) or (b) of this section, unless the affected facility has an annual capacity factor for coal or oil, or mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a Federally enforceable requirement which limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas.

(d) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility which simultaneously combusts natural gas with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides in excess of 130 nanograms per joule (0.30 lb/million Btu) heat input unless the affected facility has an annual capacity factor for natural gas of 10 percent or less and is subject to a Federally enforceable requirement which limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas.

(e) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility which simultaneously combusts coal, oil, or natural gas with byproduct/wastes shall cause to be discharged into the atmosphere from that affected facility any gases which contain nitrogen oxides in excess of an emission limit determined by the following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a Federally enforceable requirement which limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less:

$$E_{NOx} = [(EL_{No} \times H_{No}) + (EL_{To} \times H_{To}) + (EL_c \times H_c)] / H_t$$

where:

$E_{NOx}$  is the nitrogen oxides emission limit,

$EL_{ro}$  is the appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil,

$H_{ro}$  is the heat input from combustion of natural gas, distillate oil and gaseous byproduct/waste.

$EL_{ro}$  is the appropriate emission limit from paragraph (a)(2) for combustion of residual oil,

$H_{ro}$  is the heat input from combustion of residual oil and/or liquid byproduct/waste.

$EL_c$  is the appropriate emission limit from paragraph (a)(3) for combustion of coal,

$H_c$  is the heat input from combustion of coal, and

$H_t$  is the total heat input to the steam generating unit from combustion of natural gas, oil, coal, and byproduct/waste.

(f) Any owner or operator of an affected facility which combusts byproduct/waste with either natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility to establish a nitrogen oxides emission limit which shall apply specifically to that affected facility when the byproduct/waste is combusted. The petition shall include sufficient and appropriate data, as determined by the Administrator, such as nitrogen oxides emissions from the affected facility, waste composition (including nitrogen content), and combustion conditions to allow the Administrator to confirm that the affected facility is unable to comply with the emission limits in paragraph (e) of this section and to determine the appropriate emission limit for the affected facility.

(1) Any owner or operator of an affected facility petitioning for a facility-specific nitrogen oxides emission limit pursuant to this section shall:

(i) Demonstrate compliance with the emission limits for natural gas and distillate oil in paragraph (a)(1) or for residual oil in paragraph (a)(2), as appropriate, by conducting a 30-day performance test as provided in § 60.46b(e). During the performance test only natural gas, distillate oil, or residual oil shall be combusted in the affected facility; and

(ii) Demonstrate that the affected facility is unable to comply with the emission limits for natural gas and distillate oil in paragraph (a)(1) or for residual oil in paragraph (a)(2), as appropriate, when gaseous or liquid byproduct/waste is combusted in the affected facility under the same conditions and using the same technological system of emission reduction applied when demonstrating compliance under subparagraph (i).

(2) The nitrogen oxides emission limits for natural gas or distillate oil in paragraph (a)(1) or for residual oil in paragraph (a)(2), as appropriate, shall be applicable to the affected facility until and unless the petition is approved by the Administrator. If the petition is approved by the Administrator, a facility-specific nitrogen oxides emission limit will be established at the nitrogen oxides emission level achievable when the affected facility is combusting coal, oil, natural gas and byproduct/waste in a manner which the Administrator determines to be consistent with minimizing nitrogen oxides emissions.

(g) Any owner or operator of an affected facility which combusts hazardous waste (as defined by 40 CFR Part 261 or 40 CFR Part 761) with natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility for a waiver from compliance with the nitrogen oxides emission limit which applies specifically to that affected facility. The petition must include sufficient and appropriate data, as determined by the Administrator, on nitrogen oxides emissions from the affected facility, waste destruction efficiencies, waste composition (including nitrogen content), the quantity of specific wastes to be combusted and combustion conditions to allow the Administrator to determine if the affected facility is able to comply with the nitrogen oxides emission limits required by this section. The owner or operator of the affected facility shall demonstrate that when hazardous waste is combusted in the affected facility, thermal destruction efficiency requirements for hazardous waste specified in an applicable Federally enforceable requirement preclude compliance with the nitrogen oxides emission limits of this section. The nitrogen oxides emission limits for natural gas or distillate oil in paragraph (a)(1) or for residual oil in paragraph (a)(2), as appropriate, is applicable to the affected facility until and unless the petition is approved by the Administrator. (See 40 CFR 761.70 for regulations applicable to the incineration of materials containing polychlorinated biphenyls (PCB's).)

#### § 60.45b [Reserved]

#### § 60.46b Compliance and performance testing for particulate matter and nitrogen oxides.

(a) The particulate matter emission standards and opacity limits under § 60.43b apply at all times except during periods of startup, shutdown, or malfunction. The nitrogen oxides

emission standards under § 60.44b apply at all times.

(b) Compliance with the particulate matter emission standards under § 60.43b shall be determined through performance testing as described in paragraph (d) of this section.

(c) Compliance with the nitrogen oxides emission standards under § 60.44b shall be determined through performance testing as described in paragraph (e) or (f) of this section.

(d) The following procedures and reference methods are used to determine compliance with the standards for particulate matter emissions under § 60.43b.

(1) Reference Method 3 is used for gas analysis when applying Reference Method 5 or Reference Method 17.

(2) Reference Method 5 or Reference Method 17 shall be used to measure the concentration of particulate matter and the associated moisture content as follows:

(i) Reference Method 5 at all facilities; or

(ii) Reference Method 17 at facilities where the stack gas temperature at the sampling location does not exceed an average temperature of 160°C (320°F). Reference Method 17 shall not be used at affected facilities with wet scrubber systems if the effluent gas is saturated or laden with water droplets.

(3) Reference Method 1 is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(4) For Reference Method 5, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160°C (320°F).

(5) For determination of particulate emissions, the oxygen or carbon dioxide sample is obtained simultaneously with each run of Reference Method 5 or Reference Method 17 by traversing the duct at the same sampling location.

(6) For each run using Reference Method 5 or Reference Method 17, the emission rate expressed in nanograms per joule heat input is determined using:

(i) The oxygen or carbon dioxide measurements and particulate matter measurements obtained under this section.

(ii) The dry basis  $F_c$  factor, and

(iii) The dry basis emission rate calculation procedure contained in Reference Method 19 (Appendix A).

(7) Reference Method 9 is used for determining the opacity of stack emissions.

(e) To determine compliance with the emission limits for nitrogen oxides required under § 60.44b, the owner or operator of an affected facility shall conduct the performance test as required under § 60.8 using the continuous system for monitoring nitrogen oxides under § 60.48(b).

(i) For the initial compliance test, nitrogen oxides from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the nitrogen oxides emission standards under § 60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

(ii) Following the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility which fires coal or which fires residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the nitrogen oxides emission standards under § 60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

(iii) Following the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility which has a heat input capacity greater than 73 MW (250 million Btu/hour) and which fires natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the nitrogen oxides standards under § 60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxide emission data for the preceding 30 steam generating unit operating days.

(iv) Following the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, the owner or operator of an affected facility which has a heat input capacity of 73 MW (250 million Btu/hour) or less and

which fires natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the nitrogen oxides standards under § 60.44b through the use of a 30-day performance test when requested by EPA. During periods when performance tests are not requested by EPA, nitrogen oxides emissions data collected pursuant to § 60.48b(g)(1) or § 60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and to prepare excess emission reports, but will not be used to determine compliance with the nitrogen oxides emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly nitrogen oxides emission data for the preceding 30 steam generating unit operating days.

(v) If the owner or operator of an affected facility which fires residual oil does not sample and analyze the residual oil for nitrogen content, as specified in § 60.49b(e), the requirements of paragraph (iii) of this section apply and the provisions of paragraph (iv) of this section are inapplicable.

(f) To determine compliance with the emission limit for nitrogen oxides required by § 60.44b(a)(4) for duct burners used in combined cycle systems, the owner or operator of an affected facility shall conduct the performance test required under § 60.8 using the nitrogen oxides and oxygen measurement procedures in 40 CFR Part 60 Appendix A, Method 20. During the performance test, one sampling site shall be located as close as practical to the exhaust of the turbine, as provided by section 6.1.1 of Reference Method 20. A second sampling site shall be located at the outlet to the steam generating unit. Measurements of nitrogen oxides and oxygen shall be taken at these two sampling sites simultaneously during the performance test. The nitrogen oxides emission rate from the combined cycle system shall be calculated by subtracting the nitrogen oxides emission rate measured at the sampling site at the outlet from the turbine from the nitrogen oxides emission rate measured at the sampling site at the outlet from the steam generating unit.

#### § 60.47b [Reserved]

#### § 60.48b Emission monitoring for particulate matter and nitrogen oxides.

(a) The owner or operator of an affected facility subject to the opacity standard under § 60.43b shall install, calibrate, maintain and operate a continuous monitoring system for

measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

(b) Except as provided in paragraphs (g) and (h) of this section, the owner or operator of an affected facility subject to the nitrogen oxides standard of § 60.44b(a) shall install, calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxides emissions discharged to the atmosphere and record the output of the system.

(c) The continuous monitoring systems required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.

(d) The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by paragraph (b) of this section and required under § 60.13(h) shall be expressed in nanograms per joule or lb/million Btu heat input and shall be used to calculate the average emission rates under § 60.44b. The 1-hour averages shall be calculated using the data points required under § 60.13(b). At least 2 data points must be used to calculate each 1-hour average.

(e) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

(1) For affected facilities burning coal, wood or municipal-type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between 60 and 80 percent.

(2) For affected facilities burning coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows:

Fuel	Span values for nitrogen oxides (PPM)
Natural gas .....	500
Oil .....	500
Coal .....	1,000
Combination .....	$500(x+y) + 1,000z$

where:

x is the fraction of total heat input derived from natural gas,

y is the fraction of total heat input derived from oil, and

z is the fraction of total heat input derived from coal.

(3) All span values computed under paragraph (e)(2) of this section for burning combinations of regulated fuels are rounded to the nearest 500 ppm.

(f) When nitrogen oxides emission data are not obtained because of

continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Reference Method 7, Reference Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

(g) The owner or operator of an affected facility which has a heat input capacity of 73 MW (250 million Btu/hour) or less, and which has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:

(1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section, or

(2) Monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to § 60.49b(c).

(h) The owner or operator of an affected facility which is subject to the nitrogen oxides standards of § 60.44b(a)(4) is not required to install or operate a continuous monitoring system to measure nitrogen oxides emissions.

(Approved by the Office of Management and Budget under control number 2060-0072)

#### **§ 60.49b Reporting and recordkeeping requirements.**

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by § 60.7. This notification shall include:

(1) Identification of the fuels to be combusted in the affected facility, and

(2) The design heat input capacity and, if applicable, a copy of any Federally enforceable requirement which limits the annual capacity factor for any fuel or mixture of fuels listed in § 60.43b, or for any fuel or mixture of fuels listed in § 60.44b.

(3) [Reserved]

(4) [Reserved]

(b) For facilities subject to the particulate matter and nitrogen oxides emission limits under § 60.43b and § 60.44b, the performance test data from the initial performance test and the performance evaluation of the continuous emission monitors (using the applicable performance specifications in Appendix B) shall be submitted to the Administrator by the owner or operator of the affected facility.

(c) The owner or operator of each affected facility subject to the nitrogen oxides standard of 60.44b who seeks to

demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions pursuant to the provisions of § 60.48b(g)(2) shall submit to the Administrator for approval a plan which identifies the operating conditions to be monitored under § 60.48b(g)(2) and the records to be maintained under § 60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. The plan shall:

(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and nitrogen oxides emission rates (i.e., nanograms per joule or pounds per million Btu heat input). Steam generating unit operating conditions include, but are not limited to, degree of staged combustion (i.e., the ratio of primary air to secondary and/or tertiary air) and the level of excess air (i.e., flue gas oxygen level);

(2) Include the data and information which the owner or operator used to identify the relationship between nitrogen oxides emission rates and these operating conditions;

(3) Identify how these operating conditions, including steam generating unit load, will be monitored under § 60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under § 60.49b(j). If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan.

(d) The owner or operator of an affected facility shall record and maintain records of the amounts of all fuels fired during each day and calculate the annual capacity factor for coal, oil, natural gas, wood, and municipal-type solid waste for each calendar quarter.

(e) For affected facilities which fire residual oil having a nitrogen content of 0.3 weight percent or less; have heat input capacities of 73 MW (250 million Btu/hour) or less; and monitor nitrogen oxides emissions or steam generating unit operating conditions pursuant to § 60.48b(g), the owner or operator shall maintain records of the nitrogen content of the oil fired in the affected facility

and calculate the average fuel nitrogen content on a per calendar quarter basis. The nitrogen content shall be determined using ASTM Method D3431-80, Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons (incorporated by reference—see § 60.17), or fuel specification data obtained from fuel suppliers. If residual oil blends are being fired, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.

(f) For facilities subject to the opacity standard under § 60.43b, the owner or operator shall maintain records of opacity.

(g) For facilities subject to nitrogen oxides standards under § 60.44b, the owner or operator shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date.

(2) The average hourly nitrogen oxides emission rates (nanograms per joule or pounds per million Btu heat input) measured or predicted.

(3) The 30-day average nitrogen oxides emission rates (nanograms per joule or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.

(4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

(7) Identification of "F" factor used for calculations; method of determination, and type of fuel combusted.

(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

(9) Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with Performance Specifications 2 or 3.

(h) The owner or operator of any affected facility in any category listed

below in paragraphs (h)(1) and (h)(2) of this section is required to submit excess emission reports for any calendar quarter during which there are excess emissions from the affected facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period.

(1) Any affected facility subject to the opacity standards under § 60.43b(e) or to the operating parameter monitoring requirements under § 60.13(i)(1).

(2) Any affected facility which is subject to the nitrogen oxides standard of § 60.44b; fires natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 percent or less; and has a heat input capacity of 73 MW (250 million Btu/hour) or less, and is required to monitor nitrogen oxides emissions on a continuous basis pursuant to § 60.48b(g)(1) or steam generating unit operating conditions pursuant to § 60.48b(g)(2).

(3) For the purpose of § 60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under § 60.43b(f).

(4) For purposes of § 60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined pursuant to § 60.46b(e), which exceeds the applicable emission limits in § 60.44b.

(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides pursuant to § 60.48(b) shall submit a quarterly report containing the information recorded pursuant to paragraph (b) of this section.

(j) [Reserved]

(k) [Reserved]

(l) [Reserved]

(m) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.

(Approved by the Office of Management and Budget under control number 2060-0072)

3. Section 60.17 is amended by revising paragraphs (a)(1) and (a)(10) and adding paragraph (a)(47), as follows:

**§ 60.17 Incorporation by reference.**

(a) \* \* \*

(1) ASTM D388-77, Standard Specification for Classification of Coals by Rank, incorporation by reference

(IBR) approved for §§ 60.41(f), 60.45(f)(4) (i), (ii), (vi), 60.41a, 60.251 (b), (c), 60.41b.

(10) ASTM D396-78, Standard Specification for Fuel Oils, IBR approved for §§ 60.111(b), 60.111a(b), 60.41b.

(47) ASTM D3431-80, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons (microcoulometric method), IBR approved for § 60.49(e).

[FR Doc. 86-25585 Filed 11-24-86; 8:45 am]

BILLING CODE 6560-50-M

**40 CFR Part 60**

[AD-FRL-3109-1]

**Standards of Performance for New Stationary Sources; Industrial-Commercial-Institutional Steam Generating Units**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** This action amends the priority list for regulation under section 111 of the Clean Air Act by expanding the source category of industrial fossil fuel-fired steam generators to cover all steam generators, including both fossil and nonfossil fuel-fired steam generators, as well as steam generators used in industrial, commercial, and institutional applications. This amendment is based on the Administrator's determination that industrial-commercial-institutional steam generating units contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. The intended effect of this action is to include nonfossil fuel-fired and commercial/institutional steam generating units in the source category for which standards of performance are being published elsewhere in today's **Federal Register**.

**DATE:** Effective November 25, 1986.

Under section 307(b)(1) of the Clean Air Act, judicial review of the actions taken by this notice is available only by the filing of a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this rule. Under section 307(b)(2) of the Clean Air Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

**ADDRESSES:** The background information documents may be obtained

from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, (919) 541-2777.

Docket number A-79-02 is available for public inspection between 8:00 a.m. and 4:00 p.m. Monday through Friday at EPA's Central Docket Section (LE-131), West Tower Lobby, Gallery 1, 401 M Street, SW., Washington, DC.

See "**SUPPLEMENTARY INFORMATION**" for further details.

**FOR FURTHER INFORMATION CONTACT:** Mr. Fred Porter or Mr. Walter Stevenson, Standards Development Branch, Emission Standards and Engineering Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541-5578.

**SUPPLEMENTARY INFORMATION:** The Clean Air Act establishes a program under section 111 to develop standards of performance for new sources within categories of stationary sources which the Administrator determines may contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. Such source categories are referred to as "significant contributors." Section 111(f) of the Clean Air Act, added by the 1977 Clean Air Act Amendments, requires that the Administrator publish a list of categories of major stationary sources which are significant contributors and for which standards of performance for new sources are to be promulgated.

This list, which identifies major source categories in order of priority for development of regulations, was proposed in the **Federal Register** on August 31, 1978, and promulgated on August 21, 1979 (40 CFR 60.16, 44 FR 49222). Of the 59 source categories on the list, the category "Industrial Fossil Fuel-Fired Steam Generators: Industrial Boilers" is listed as number 11.

Today's action amends the priority list by revising the title of this source category to "Industrial-Commercial-Institutional Steam Generating Units." This change deletes the references to the type of fuel combusted, to the distinction between steam generating unit application, and to the type of steam generator.

As amended, this source category includes any device or system which combusts fuel which results in the production of steam (or hot water), including incinerators with heat recovery, combined cycle steam generators, cogeneration systems and small electric utility steam generating units. All of these types of steam generators exhibit emission characteristics which are similar in

quantity and type. Furthermore, the emission control devices which have been found to be effective on steam generating units are also effective in reducing emissions from other types of steam generators. Therefore, the scope of the source category is expanded to include all types of steam generating units except those covered under Subpart Da.

#### Public Participation

This amendment to the priority list was proposed in the *Federal Register* on June 19, 1984 (49 FR 25156). Public comments were solicited at the time of proposal. Notice of a public hearing was also given to provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standard. No requests to present oral testimony were received.

The public comment period was from June 19, 1984 to September 17, 1984. Two comment letters were received and were given consideration.

#### Significant Comments and Changes to the Proposed Standard

Two commenters requested that steam generating units with heat input capacities less than 73 MW (250 million Btu/hour) be delisted from the new category of "Industrial-Commercial-Institutional Steam Generating Units." The commenters indicated that the reasons for their request are: (1) That steam generating units under 73 MW (250 million Btu/hour) heat input capacity are not significant air pollution sources; and (2) that these units are already adequately regulated by State regulations and other requirements of the Clean Air Act.

The Administrator has determined that fossil and nonfossil fuel-fired industrial, commercial, and institutional steam generating units should be classified together as one source category for the purpose of the priority listing. These steam generating units emit similar pollutants, fire the same fuels, and may employ the same emission control techniques. Their impacts on human health are similar and the Administrator has determined, pursuant to the provisions of section 111(b)(1)(A), that the inclusion of industrial, commercial, and institutional steam generating units in one source category is warranted.

The industrial-commercial-institutional source category is a significant contributor and an appropriate source category for regulation. There is no requirement that each subcategory of a listed category or each individual source also be significant contributors. For this reason,

the request that fossil and nonfossil fuel-fired steam generating units with heat input capacities less than 73 MW (250 million Btu/hour) be delisted from the source category of industrial-commercial-institutional steam generating units is denied.

#### Background Information Document

The background information documents (BID) for the promulgated standards under Subpart Db that contain background information related to this action may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone number (919)541-2777. Please refer to EPA-450/3-82-006a "Fossil Fuel-Fired Industrial Boilers—Background Information Volume 1: Chapters 1-9", EPA-450/3-82-006b "Fossil Fuel-Fired Industrial Boilers—Background Information Volume 2: Appendices, EPA-450/3-82-007 "Nonfossil Fuel-Fired Industrial Boilers—Background Information," and EPA-450/3-86-003 "Fossil and Nonfossil Fuel-Fired Industrial Boilers—Background Information for Promulgated PM and NO<sub>x</sub> Standards." The BID Volumes 1 and 2 contain technical and source emission data, as well as analyses of regulatory alternatives and economic and environmental impacts. The BID for the promulgated standards contains a summary of all the public comments made on the proposed Subpart Db standards and includes a summary of public comments received concerning this action, and the final Environmental Impact Statement, which summarizes the impacts of the Subpart Db standards.

**Docket.** A docket, number A-79-02, contains supporting information considered in development of standards of performance for steam generating units. The docket is available for public inspection between 8:00 a.m. and 4:00 p.m., Monday through Friday, at EPA's Central Docket Section (LE-131), West Tower Lobby, Gallery 1, 401 M Street, SW., Washington, DC. A reasonable fee may be charged for copying.

#### Administrative

The docket is an organized and complete file of all the information considered in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and

purpose of the proposed and promulgated standards and responses to significant comments, the contents of the docket, except for interagency review materials, will serve as the record in case of judicial review [Section 307(d)(7)(A)]. This docket contains supporting information used in developing the 40 CFR Part 60 Subpart Db standards.

Section 317 of the Clean Air Act requires the Administrator to prepare an economic impact assessment for any new source standard of performance promulgated under section 111(b) of the Act. Because this action does not promulgate a new source performance standard, an economic impact assessment was not prepared.

There are no information collection requirements associated with this amendment to the priority list.

Under Executive Order 12291, the Administrator is required to judge whether a regulation is a "major rule" and therefore subject to the requirements of a regulatory impact analysis (RIA). This amendment would result in none of the adverse economic effects set forth in Section 1 of the Order as grounds for finding a regulation to be a "major rule." This action has been submitted to OMB for review under Executive Order 12291.

The Regulatory Flexibility Act of 1980 requires the identification of potentially adverse impacts of Federal regulations upon small business entities. The Act specifically requires the completion of a Regulatory Flexibility Analysis in those instances where small business impacts are possible. Because this action imposes no adverse economic impacts, a Regulatory Flexibility Analysis has not been conducted.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that the proposed rule will not have a significant economic impact on a substantial number of small entities.

#### List of Subjects in 40 CFR Part 60

Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements, Incorporation by reference.

Dated: October 31, 1986.

Lee M. Thomas,  
Administrator.

#### PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for Part 60 continues to read as follows:

Authority: 42 U.S.C. 7411 and 7601(a).

2. 40 CFR Part 60, Subpart A, § 60.16 is amended by revising item 11 as follows:

**§ 60.16 Priority list.**

11. Industrial-Commercial-Institutional Steam Generating Units.

[FR Doc. 86-25586 Filed 11-24-86; 8:45 am]

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**40 CFR Part 60**

[AD-FRL-3109-2]

**Standards of Performance for New Stationary Sources; Fossil Fuel-Fired Steam Generating Units**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** Standards of performance limiting nitrogen oxides (NO<sub>x</sub>) emissions from steam generating units firing mixtures of natural gas and wood were promulgated under Subpart D of 40 CFR Part 60 in the *Federal Register* on November 22, 1976 (41 FR 51397). This action amends the NO<sub>x</sub> emission limit for steam generating units firing mixtures of natural gas and wood to make it consistent with the NO<sub>x</sub> emission limit for this same fuel mixture under Subpart Db of 40 CFR Part 60 which is being promulgated in a separate document in today's *Federal Register*. The amended emission limit of 129 ng/J (0.30 lb/million Btu) heat input for units firing mixtures of natural gas and wood replaces the NO<sub>x</sub> emission limit of 86 ng/J (0.20 lb/million Btu) heat input which was adopted in 1976 (41 FR 51397). The amended emission limit applies to all Subpart D steam generating units firing mixtures of natural gas and wood that commenced construction after August 17, 1971.

**EFFECTIVE DATE:** November 25, 1986.

Under section 307(b)(1) of the Clean Air Act, judicial review of the actions taken by this notice is available only by the filing of a petition for review in the U. S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this rule. Under section 307(b)(2) of the Clean Air Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

**ADDRESSES:** Background information documents may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, (919) 541-2777.

Docket number A-79-02 is available for public inspection between 8:00 a.m. and 4:00 p.m. Monday through Friday at EPA's Central Docket Section (LE-131), West Tower Lobby, Gallery 1, 401 M Street, SW., Washington, DC 20460.

See "SUPPLEMENTARY INFORMATION" for further details.

**FOR FURTHER INFORMATION CONTACT:**

Mr. Fred Porter or Mr. Walter Stevenson, Standards Development Branch, Emission Standards and Engineering Division (MD-13), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541-5578.

**SUPPLEMENTARY INFORMATION:**

**The Standards**

Under 40 CFR Part 60 Subpart D, particulate matter, NO<sub>x</sub> and sulfur dioxide emission limits are established for fossil fuel-fired steam generating units having heat input capacities greater than 73 MW (250 million Btu/hour) that commenced construction after August 17, 1971. The standards under Subpart D apply to units firing fossil fuel alone or firing mixtures of fossil fuel and wood. Today's action would amend the NO<sub>x</sub> emission standard for units firing mixtures of natural gas and wood. Prior to today's amendment, NO<sub>x</sub> emissions from steam generating units firing mixtures of natural gas and wood were limited to 86 ng/J (0.20 lb/million Btu) heat input. Since promulgation of 40 CFR Part 60 Subpart D in 1976 (41 FR 51397), a number of steam generating units firing mixtures of natural gas and wood have been constructed. Results from extensive emission tests indicate a NO<sub>x</sub> emission limit of 86 ng/J (0.20 lb/million Btu) heat input is not achievable on a continuous basis for units firing mixtures of natural gas and wood.

Therefore, this action amends the NO<sub>x</sub> standard for steam generating units subject to 40 CFR Part 60 Subpart D, which fire mixtures of natural gas and wood to 129 ng/J (0.30 lb/million Btu) heat input. The technical database supporting this emission limit is discussed in 40 CFR Part 60 Subpart Db (which is being promulgated in a separate document in today's *Federal Register*).

This amendment applies to all steam generating units firing mixtures of natural gas and wood that are larger than 73 MW (250 million Btu/hour) heat input capacity and that commenced construction after August 17, 1971. Without such a change, natural gas- and wood-fired steam generating units constructed after June 19, 1984 would be subject to a 129 ng/J (0.30 lb/million Btu) heat input NO<sub>x</sub> emission limit under 40

CFR Part 60 Subpart Db, while older units constructed between August 17, 1971 and June 19, 1984 (Subpart D) would be subject to a more restrictive NO<sub>x</sub> emission limit of 86 ng/J (0.20 lb/million Btu) heat input. The amended NO<sub>x</sub> standard being promulgated today corrects that inconsistency.

**Environmental, Energy, and Economic Impacts**

The environmental, energy, and economic impacts associated with the promulgated standard are discussed in the preamble to Subpart Db (standards of performance for industrial-commercial-institutional steam generating units) which is printed separately in today's *Federal Register*.

**Public Participation**

This amendment to Subpart D was proposed and published in the *Federal Register* on December 2, 1985 (50 FR 49422). Public comments were solicited at the time of proposal. Notice of a public hearing was also given to provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standard. No requests to present oral testimony were received.

The public comment period was from December 2, 1985 to February 18, 1986. Four comment letters were received and were given consideration.

**Significant Comments and Changes to the Proposed Standard**

Comments on the proposed standard were received from industry and industrial trade associations. All of the comments endorsed the adoption of the proposed amendment. Consequently, the NO<sub>x</sub> emission limit being amended today is the same as the proposed amendment [129 ng/J (0.30 lb/million Btu) heat input] for affected facilities firing mixtures of natural gas and wood.

**Background Information Document.** The background information documents (BID) for the promulgated standards under Subpart Db that contain background information related to this action may be obtained from the U.S. EPA Library (MD-35), Research Triangle Park, North Carolina 27711, telephone number (919) 541-2777. Please refer to EPA-450/3-82-006a "Fossil Fuel-Fired Industrial Boilers—Background Information Volume 1: Chapters 1-9," EPA-450/3-82-006b "Fossil Fuel-Fired Industrial Boilers—Background Information Volume 2: Appendices," EPA-450/3-82-007 "Nonfossil Fuel-Fired Industrial Boilers—Background Information," and EPA-450/3-86-003 "Fossil and Nonfossil Fuel-Fired

**Industrial Boilers—Background Information for Promulgated PM and NO<sub>x</sub> Standards.** The BID Volumes 1 and 2 contain technical and source emission data, and analyses of regulatory alternatives and economic and environmental impacts. The BID for the promulgated standards contains a summary of all the public comments made on the proposed Subpart Db standards and includes a summary of public comments received concerning this action, and the final Environmental Impact Statement, which summarizes the impacts of the standards.

**Docket.** A docket, number A-79-02, contains supporting information considered in development of the Subpart Db promulgated standards and includes a review of data pertaining to the proposed amendment that were not available in 1976 when 40 CFR Part 60 Subpart D was adopted. The docket is available for public inspection between 8:00 a.m. and 4:00 p.m., Monday through Friday, at EPA's Central Docket Section (LE-131), West Tower Lobby, Gallery 1, 401 M Street, SW., Washington, DC 20460. A reasonable fee may be charged for copying.

#### Administrative

The docket is an organized and complete file of all the information considered in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards and responses to significant comments, the contents of the docket, except for interagency review materials, will serve as the record in case of judicial review [Section 307(d)(7)(A)]. A discussion of the technical database supporting the proposed amendment to 40 CFR Part 60

Subpart D can be reviewed in Docket No. A-79-02. This docket contains supporting information used in developing the 40 CFR Part 60 Subpart Db standards and includes a review of data that were not available in 1976 when 40 CFR Part 60 Subpart D was adopted.

Section 317 of the Clean Air Act requires the Administrator to prepare an economic impact assessment for the promulgation or substantial revision of any new source standard of performance promulgated under Section 111(b) of the Act. Because this revision is not substantial, an economic impact assessment was not prepared. However, an economic assessment was previously prepared for 40 CFR Part 60 Subpart D which considered other regulatory alternatives. All aspects of the assessment were considered in the formulation of the 40 CFR Part 60 Subpart D standards to ensure that cost was carefully considered in determining the best demonstrated technology. Under this action the best demonstrated technology remains the same; therefore, there is no additional economic impact. The economic impact assessment is included in the BID for the proposed 40 CFR Part 60 Subpart D standards.

There are no information collection requirements associated with this amendment to 40 CFR Part 60 Subpart D. Information collection requirements associated with 40 CFR Part 60 Subpart D have previously been approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.* and were assigned OMB control number 2060-0026.

Under Executive Order 12291, the Administrator is required to judge whether a regulation is a "major rule" and therefore subject to the requirements of a regulatory impact analysis (RIA). This amendment would result in none of the adverse economic effects set forth in Section 1 of the Order as grounds for finding a regulation to be a "major rule." This action has been

submitted to OMB for review under Executive Order 12291.

The Regulatory Flexibility Act of 1980 requires the identification of potentially adverse impacts of Federal regulations upon small business entities. The Act specifically requires the completion of a Regulatory Flexibility Analysis in those instances where small business impacts are possible. Because this action imposes no adverse economic impacts, a Regulatory Flexibility Analysis has not been conducted.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that the proposed rule will not have a significant economic impact on a substantial number of small entities.

#### List of Subjects in 40 CFR Part 60

Air pollution control,  
Intergovernmental relations, Reporting  
and recordkeeping requirements,  
Incorporation by reference.

Dated: October 31, 1986.

Lee M. Thomas,  
Administrator.

#### PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for Part 80 continues to read as follows:

Authority: 42 U.S.C. 7411 and 7601(a).

2. 40 CFR Part 60, § 60.44 is amended by revising paragraphs (a)(1) and (a)(2) as follows:

#### § 60.44 Standards for nitrogen oxides.

(a) \* \* \*

(1) 86 nanograms per joule heat input (0.20 lb per million Btu) derived from gaseous fossil fuel.

(2) 129 nanograms per joule heat input (0.30 lb per million Btu) derived from liquid fossil fuel, liquid fossil fuel and wood residue, or gaseous fossil fuel and wood residue.

\* \* \* \* \*

[FR Doc. 86-25587 Filed 11-24-86; 8:45 am]

BILLING CODE 6560-50-M



**Registered for**

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**Tuesday  
November 25, 1986**

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**Part VI**

**Environmental  
Protection Agency**

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**40 CFR Part 60**

**Standards of Performance for New  
Stationary Sources—Magnetic Tape  
Manufacturing Industry; Withdrawal of  
Proposed Rule for Solvent Storage Tanks**

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 60

[AD-FRL-3083-1]

#### Standards of Performance for New Stationary Sources—Magnetic Tape Manufacturing Industry; Withdrawal of Proposed Rule for Solvent Storage Tanks

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Withdrawal of Proposed Rule for Solvent Storage Tanks.

**SUMMARY:** On January 22, 1986, EPA proposed new source performance standards (NSPS) limiting atmospheric emissions of volatile organic compounds (VOC's) from magnetic tape manufacturing facilities (51 FR 2996). Comments were received on the cost to comply with the proposed standard for solvent storage tanks. The Agency has reviewed these comments, prepared a revised cost analysis, and concluded that no cost-effective control options beyond existing practice are available for solvent storage tanks at magnetic tape facilities. Today's notice, therefore, withdraws the proposed rule for solvent storage tanks at magnetic tape manufacturing facilities.

**ADDRESSES:** *Docket.* Information used by EPA in the determination to rescind the proposed storage tank NSPS is contained in Docket No. A-82-45, which is available for public inspection between 8:00 a.m. and 4:00 p.m. Monday through Friday, at EPA's Central Docket Section (A-130), West Tower Lobby, Gallery 1, Waterside Mall, 401 M Street SW., Washington, DC 20460. A reasonable fee may be charged for copying.

**FOR FURTHER INFORMATION CONTACT:** For further information on the policy aspects of this announcement, contact Cynthia Dowd-Monroe (telephone number [919] 541-5578); for information on the technical aspects, contact Jim Berry (telephone number [919] 541-5605), Emission Standards and Engineering Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

#### SUPPLEMENTARY INFORMATION:

##### I. Background

On January 22, 1986, pursuant to section 111 of the Clean Air Act as amended, EPA proposed standards of performance to limit VOC emissions from new solvent storage tanks at magnetic tape manufacturing facilities

(51 FR 2996). The proposed regulation required the installation and use of pressure relief valves set at 103 kilopascals (kPa) on each tank for which construction began on or after January 22, 1986 (the date of proposal). Volume I of the background information document (BID) contains an analysis of the control options for VOC emissions from solvent storage tanks less than 75 cubic meters ( $m^3$ ) in capacity located at magnetic tape plants. (Tanks larger than 75  $m^3$  were excluded from consideration because they would be covered under the proposed NSPS for volatile organic liquid storage vessels.) Three control options were considered in the analysis presented in the BID: (1) Carbon adsorbers, (2) pressure relief valves set at 103 kPa, and (3) conservation vents set at 17.2 kPa. The analysis concluded that both pressure relief valves and conservation vents were cost-effective means of controlling emissions and that the highest level of control (carbon adsorbers) was not cost effective (average cost effectiveness of \$7,100/megagram [Mg]). Pressure relief valves achieve a higher level of control than conservation vents; therefore, they were the basis of the proposed standard.

Implicit in the requirement for pressure relief valves set at 103 kPa is that the tank would be a pressure vessel built in accordance with American Society of Mechanical Engineers (ASME) codes. The baseline case (i.e., the type tank that would be installed in the absence of an NSPS) is a tank operated at atmospheric pressure. To compare the costs of ASME pressure vessels and atmospheric tanks, EPA gathered data for both ASME pressure vessels and tanks built to American Petroleum Institute (API) specification 12F. The data indicated that there was no significant cost difference between ASME pressure vessels and tanks built to the specifications of API 12F. On the basis that no additional cost would be incurred to obtain the higher level of control achieved by pressure vessels equipped with pressure relief valves, the proposed standard required the installation and use of pressure relief valves.

On March 11, 1986, a public hearing was held to allow oral comments on all aspects of the proposed standard. At this hearing and in subsequent written comments, industry representatives stated that an inappropriate baseline was selected for comparison to the various control options and that the cost of necessary ancillary equipment was not included in the cost analysis. According to the commenters, these factors would increase the cost difference between baseline and the

proposed standard, resulting in increased cost-effectiveness values.

##### II. Comments

The commenters stated that instead of the vertical, atmospheric tank designed to meet API standard 12F proposed as baseline in the BID, the baseline should be a horizontal atmospheric tank designed to meet Underwriters Laboratories (UL) specification No. 142 or No. 58. The commenters stated that if an API 12F tank were installed at a manufacturing facility, the facility would not be in compliance with Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910.106) which restrict the use of API 12F tanks to production liquids in the oil industry. The commenters also contended that there is a significant cost differential between tanks built to the UL specifications and pressure vessels built to ASME specifications.

Additionally, commenters made the following statements about EPA's cost analysis:

1. The EPA's cost analysis was based on a 5-centimeter (cm) diameter pressure relief valve which would not comply with the emergency venting requirements of OSHA regulation 29 CFR 1910.106. A more expensive 15.2-cm diameter pressure relief valve would be required;
2. More complex and expensive equipment to measure liquid levels would be necessary in pressure vessels; and
3. The cost estimate for pressure vessels should have included the cost of additional land area to comply with fire codes.

##### III. Cost Reevaluation

After evaluating these comments, the Agency has determined that commenters are correct in noting the conflict between the baseline case in the original cost analysis and OSHA requirements and in asserting that a 37- $m^3$  pressure vessel would require a 15.2-cm diameter pressure relief valve to comply with OSHA regulations, that additional costs for liquid level measuring gauges would be incurred, and that additional land area could be required. Therefore, the cost analysis presented in the BID was reevaluated. This analysis is contained in Docket No. A-82-45, Item IV-B-2.

For this reevaluation, EPA attempted to ascertain the baseline tank from the types of tanks already in use. However, representatives of plants that EPA contacted were unable to cite the design specifications of their tanks because the records had been lost, the tanks were

built before the representative joined the company, or the tanks are a very small concern in plant construction, etc. Atmospheric tanks designed to UL specification No. 142 or No. 58 or API specification 650 are technically feasible for baseline. The Agency assumed that the baseline tank type would be the design that meets all applicable codes and regulations for the least cost. In recent price quotations received from several vendors and commenters, the price of a 37-m<sup>3</sup> atmospheric tank designed to UL specifications ranged from \$4,400 to \$5,200 and averaged \$4,800 while the price of the same size tank designed to API specification 650 was \$11,300. Considering the lower cost for UL tanks, it seems probable that most industry representatives would elect to use tanks constructed to UL specifications. Therefore, for the purpose of this reevaluation, it was first assumed that the baseline tank would be constructed to UL specifications.

The cost estimates received for a 37-m<sup>3</sup> pressure vessel equipped with pressure relief valves set at 103 kPa designed to ASME codes ranged from \$13,700 to \$16,000 and averaged \$14,800. The difference between the average capital cost of a UL tank and that of a pressure vessel is \$10,000. This cost would raise the cost-effectiveness value of controlling emissions with pressure relief valves set at 103 kPa from a net credit to about \$8,400/Mg. This is judged to be unreasonable for this industry.

Because of the uncertainty over whether a UL tank or an API 650 tank is the correct baseline, EPA also examined whether installation of a pressure vessel is cost effective when compared to an API 650 tank as baseline. The capital cost differential between the API 650 cost estimate and the average pressure

vessel cost is about \$3,500. This capital cost results in a cost-effectiveness value of about \$2,100/Mg for controlling emissions with pressure relief valves. This also is judged to be unreasonable for this industry. Because these cost-effectiveness values are unreasonable for this industry for all cases when tank costs alone are considered, it is clear that inclusion of costs for additional land area or ancillary equipment would only make the control option less cost effective.

#### IV. Alternative Control Technology

The cost-effectiveness values in the original cost analysis presented in the BID for the control option requiring installation of conservation vents were reasonable. However, that analysis assumed that the same type of tank could be used for both the baseline case and the conservation vent option and that the only expense incurred would be for the vent itself. Since that time, the Agency has determined that for a pressure setting of 17.2 kPa, an API 620 tank, which can be designed for pressures up to 103 kPa, must be used and that an emergency vent must also be installed. An API 620 tank would be more expensive than an API 650 tank because the higher internal pressures require more complex construction such as dished bottoms and tie-downs. In addition, costs for this control option are also incurred for the vent itself (\$990) and for a 20-cm diameter emergency vent (\$2,100). If, as an estimate, the tank cost is assumed to be equivalent to that of an API 650 tank (\$11,300), the minimum capital cost of the conservative vent option would be \$14,390. This option would require an incremental capital cost of \$9,590 relative to a UL 142 tank and \$3,090

relative to an API 650 tank. Including only these factors in the capital costs, the cost-effectiveness values of conservation vents relative to a UL 142 tank and an API 650 tank are \$11,400/Mg and \$2,800/Mg, respectively. Both of these values would be higher if the actual higher costs of an API 620 tank were used instead of assuming that the capital cost is the same as that of an API 650 tank. Thus, there is no alternative control technology to pressure relief valves that could be used as the basis of a revised NSPS.

#### V. Conclusion

In summary, the Agency has reevaluated the cost of the proposed NSPS based on industry comments and new data. Whether UL tanks or API 650 tanks are the correct baseline, the cost-effectiveness of the proposed NSPS for solvent storage tanks is unreasonable. The cost-effectiveness values of a higher level of control (carbon adsorption) and of a lower level of control (conservation vents) are also unreasonable. Thus, there is no cost-effective control option for solvent storage tanks. Accordingly, the rule for solvent storage tanks proposed at 51 FR 2996 on January 22, 1986, is withdrawn.

#### List of Subjects in 40 CFR Part 60

Air pollution control;  
Intergovernmental relations, Reporting and recordkeeping requirements,  
Incorporation by reference, Magnetic tape manufacturing (SIC Codes 3679, 3373).

Dated: November 7, 1986.

Lee M. Thomas,  
Administrator.

[FR Doc. 86-26512 Filed 11-24-86; 8:45 am]

BILLING CODE 6560-50-M



5010-108-0100

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**Tuesday  
November 25, 1986**

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**Part VII**

**Department of Defense  
General Services  
Administration**

**National Aeronautics and  
Space Administration**

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**48 CFR Part 52  
Federal Acquisition Regulation (FAR);  
Service of Protest Clause; Proposed Rule**



**DEPARTMENT OF DEFENSE****GENERAL SERVICES  
ADMINISTRATION****NATIONAL AERONAUTICS AND  
SPACE ADMINISTRATION****48 CFR Part 52****Federal Acquisition Regulation (FAR);  
Service of Protest Clause**

**AGENCIES:** Department of Defense (DoD), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA).

**ACTION:** Proposed rule.

**SUMMARY:** The Civilian Agency Acquisition Council and the Defense Acquisition Regulatory Council are considering a revision to Federal Acquisition Regulation (FAR) 52.233-2, Service of Protest, that would (1) clarify service of protest requirements and (2) provide for designation of officials or locations where an information copy of the protest must be delivered.

**DATE:** Comments should be submitted to the FAR Secretariat at the address shown below on or before January 26, 1987, to be considered in the formulation of a final rule.

**ADDRESS:** Interested parties should submit written comments to: General Services Administration, FAR Secretariat (VRS), 18th & F Streets NW., Room 4041, Washington, DC 20405.

Please cite FAR Case 86-58 in all correspondence related to this issue.

**FOR FURTHER INFORMATION CONTACT:** Ms. Margaret A. Willis, FAR Secretariat, Telephone (202) 523-4755.

**SUPPLEMENTARY INFORMATION:****A. Regulatory Flexibility Act**

The proposed revision to FAR 52.233-2 is expected to have a slight beneficial impact on small entities under the Regulatory Flexibility Act (5 U.S.C. 601, et seq.); however the magnitude of that impact cannot be determined from available data. Comments are invited.

**B. Paperwork Reduction Act**

The Paperwork Reduction Act (Pub. L. 96-511) does not apply because the proposed revision to FAR 52.233-2 does not impose any additional reporting or recordkeeping requirements or collection of information from offerors, contractors, or members of the public which require the approval of OMB under 44 U.S.C. 3501, et seq.

**List of Subjects in 48 CFR Part 52**

Government procurement.

Dated: November 14, 1986.

**Lawrence J. Rizzi,**

*Director, Office of Federal Acquisition and Regulatory Policy.*

Therefore, it is proposed that 48 CFR Part 52 be amended as set forth below:

**PART 52—SOLICITATION PROVISIONS  
AND CONTRACT CLAUSES**

1. The authority citation for Part 52 continues to read as follows:

**Authority:** 40 U.S.C. 486(c); 10 U.S.C. Chapter 137; and 42 U.S.C. 2453(c).

2. Section 52.233-2 is amended by removing in the title of the clause the date "(JAN 1985)" and inserting in its place the date "(NOV 1986)" and by revising the provision to read as follows:

**52.233-2 Service of protest.**

As prescribed in 33.106, insert the following provision:

**Service of Protest (Nov 1986)**

(a) *Definition.* "Protest," as used in this provision, means a written objection by an interested party to a solicitation by an agency for offers for a proposed contract for the acquisition of supplies or services or a written objection by an interested party to a proposed award or the award of such a contract.

(b) *General.* Protests filed directly with an agency and copies of any protests that are filed with the General Accounting Office (GAO) or the General Services Administration Board of Contract Appeals (GSBCA) shall be served on the Contracting Officer, by obtaining written and dated acknowledgment of receipt from

The copy of any such protest must be received in the office or offices designated above on the same day a protest is filed with the GSBCA, or within one day of filing a protest with the GAO.

(Contracting Officer designate the official or location where a protest may be served on the Contracting Officer. Contracting Officer may designate, in accordance with agency procedures, the official or location where an information copy of the protest must be delivered.)

(End of provision)

[FR Doc. 86-26488 Filed 11-24-86; 8:45 am]

**BILLING CODE 6820-61-M**



**REGISTERED MAIL**

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**Tuesday  
November 25, 1986**

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**Part VIII**

**Department of  
Transportation**

**Research and Special Programs  
Administration**

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**Southern Pacific Transportation Company  
Application for Inconsistency Ruling;  
Public Notice and Invitation to Comment**

**DEPARTMENT OF TRANSPORTATION****Research and Special Programs  
Administration****[Docket No. IRA-39]****Southern Pacific Transportation  
Company Application for  
Inconsistency Ruling; Public Notice  
and Invitation to Comment****AGENCY:** Research and Special Programs  
Administration; DOT.**ACTION:** Public notice and invitation to  
comment.

**SUMMARY:** Southern Pacific Transportation Co. (SP) has applied for an administrative ruling to determine whether §§ 705.310-705.380 of the Nevada Administrative Code, promulgated by the Nevada Public Service Commission (NPSC), are inconsistent with the Hazardous Materials Transportation Act (HMTA) and the Hazardous Materials Regulations (HMR) issued thereunder, and, therefore, preempted under section 112(a) of the HMTA. The NPSC regulations establish a permit system which governs the rail transportation, storage, loading and unloading of certain hazardous materials in Nevada.

**DATES:** Comments received on or before January 8, 1987, and rebuttal comments received on or before February 23, 1987, will be considered before an administrative ruling is issued by the Director of the Office of Hazardous Materials Transportation. Rebuttal comments may discuss only those issues raised by comments received during the initial comment period and may not discuss new issues.

**ADDRESSES:** The application and any comment received may be reviewed in the Dockets Branch, Research and Special Programs Administration, Room 8426, Nassif Building, 400 7th Street SW., Washington, DC 20590. Comments and rebuttal comments on the application may be submitted to the Dockets Branch at the above address, and should include the Docket Number IRA-39. Three copies are requested. A copy of each comment and rebuttal comment also must be sent to SP's counsel, John MacDonald Smith, Esq., Southern Pacific Building, One Market Plaza, San Francisco, CA 94105 and to Mr. Scott M. Craigie, Chairman, Public Service Commission of Nevada, 505 East King Street, Carson City, NV 89710, and that fact certified to at the time the comment is submitted to the Dockets Branch. (The following format is suggested: "I hereby certify that copies of this comment have been sent to Messrs. Smith and Craigie

at the addresses specified in the Federal Register.")

**FOR FURTHER INFORMATION CONTACT:** Edward H. Bonekemper, III, Office of the Chief Counsel, Research and Special Programs Administration, 400 7th Street SW., Washington, DC 20590, Telephone 202-366-4401.

**SUPPLEMENTARY INFORMATION:****1. Background**

The HMTA (49 U.S.C. app. 1801 *et seq.*) at section 112(a) (49 U.S.C. app. 1811(a)) expressly preempts "any requirement, of a State or political subdivision thereof, which is inconsistent with any requirement" of the HMTA or the HMR issued thereunder.

Procedural regulations implementing section 112 of the HMTA are codified at 49 CFR 107.201-107.225. These regulations provide for the issuance of inconsistency rulings and nonpreemption determinations. Briefly, an inconsistency ruling is an administrative option as to the relationship between a state or political subdivision requirement and a requirement of the HMTA or HMR. Section 107.209(c) sets forth the following factors which are considered in determining whether a state or political subdivision requirement is inconsistent:

(1) whether compliance with both the state or political subdivision requirement and the HMTA or HMR is possible (the "dual compliance" test); and

(2) the extent to which the state or political subdivision requirement is an obstacle to the accomplishment and execution of the HMTA and the HMR (the "obstacle" test).

**2. Application for Inconsistency Ruling**

Southern Pacific Transportation Company (SP) has filed an application for an administrative ruling seeking a determination that sections 705.310-705.380 of the Nevada Administrative Code are inconsistent with the HMTA and the HMR. The Nevada provisions require railroads to obtain permits from NPSC before the railroads may load or unload certain hazardous materials onto or from railroad equipment while on railroad property; transfer certain hazardous materials from property owned or controlled by the railroad to another means of transportation; or store defined hazardous materials on property owned or under the control of a railroad, except on a through track. These regulatory provisions contain permit application requirements, application evaluation criteria, permit

expiration and renewal procedures, suspension or revocation criteria, and notice procedures. Sections 705.310-705.380 are reprinted as Appendix A to this Notice.

SP contends that the Nevada provisions are inconsistent for five general reasons:

They require different treatment and handling of certain commodities because of their DOT classifications as hazardous materials.

(2) They require the preparation of lengthy, cumbersome permit applications, replete with irrelevant and extraneous detail, before the defined hazardous materials may be loaded, unloaded, transferred, stored or temporarily held in transit.

(3) They involve extensive delays and require hazardous materials to be held in other states pending admission into Nevada.

(4) The required application information goes far beyond that required on Department of Transportation (DOT) shipping papers.

(5) Permit processing delays result in NPSC having uncontrolled discretion over the transportation of hazardous materials in Nevada.

SP asserts that NPSC is not empowered under HMTA to dictate in what manner (i.e., trailer on flatcar or container on flatcar) hazardous materials may be transported to or from transfer points in Nevada. Additionally, SP states that NPSC may not exercise general regulatory control over the loading, unloading, and storing of hazardous materials and is not empowered to dictate when, where and under what conditions these activities may take place on railroad property. SP specifically alleges that NPSC's prohibition against holding cars at any rail yard, siding or intermediate point for more than 48 hours is inconsistent with 49 CFR § 174.14.

The applicant alleges the below-described specific conflicts between the Nevada regulations and the following Federal regulations:

(1) 49 CFR 174.5, which exempts from regulation under the HMR railway torpedoes or fusees.

(2) 49 CFR 218.37(a)(1)(iii), which requires a trainman to place a track torpedo on the rail or drop a lighted fusee on the truck for rear-end protection;

(3) 49 CFR 174.16, which requires certain unloading from rail cars or storage on the carrier's property; and

(4) 49 CFR 174.103, which requires certain unloading or immediate removal of damaged or astray shipments.

SP contends that the permit process takes months and ultimately leaves to the uncontrolled discretion of NPSC whether railroads may transport hazardous materials to or from Nevada. SP supports this allegation by pointing to an ongoing application which allegedly has been filed and not acted upon for 10 months.

Also, the applicant contends that Federal laws and regulations require SP, as a common carrier, to promptly transport all hazardous materials which are prepared, packaged and tendered in accordance with DOT regulations; therefore, SP states, it does not have authority to refuse shipments from customers and connecting carriers until a state permit is obtained. In essence, SP contends it cannot comply with both the Federal and state requirements.

SP further contends that NAC § 705.330(l)(i) improperly attempts to place the governmental responsibility for contingency planning on railroad carriers.

Additionally, a SP requests an expeditious determination of whether NPSC's regulations are inconsistent because, it asserts, 21 criminal proceedings have been instituted against SP or its employees because of alleged noncompliance with the Nevada regulations. These criminal proceedings relate to movements of explosives to and from the Army Ammunition Plant at Hawthorne, Nevada. SP has attached to its application an affidavit of William R. Lucas, Deputy Director for Inland Traffic of the Military Traffic Management Command (MTMC), in which he asserts that prompt and efficient railroad service is necessary to support the national defense effort and that Nevada's regulations adversely affect such service.

Finally, SP asserts that the amount of information needed to comply with the permit regulation causes an inherent time lag and adversely affects SP and its customers. Consequently, SP states, the regulations of NPSC are an obstruction to the free flow of commerce.

### 3. Public Comment

Comment should be restricted to the issue of whether the challenged NPSC regulations are inconsistent with the HMTA or the HMR issued thereunder.

Persons intending to comment on the application should examine the complete application in the RSPA Dockets Branch, the procedures governing the Department's consideration of applications for inconsistency rulings (49 CFR 107.201-107.211), and the cited NPSC regulations in Appendix A to this notice.

Issued in Washington, DC on November 19, 1986.

Alan L. Roberts,  
Director, Office of Hazardous Materials  
Transportation.

### APPENDIX A

#### Nevada Administrative Code

#### Transportation of Hazardous Material by Rail

##### 705.310 Definitions.

As used in NAC 705.310 to 705.380, inclusive, unless the context otherwise requires:

1. "Commission" means the public service commission of Nevada.
2. "Hazardous material" means low specific activity material as defined in 49 CFR 173.403(n) and radioactive material as defined in 49 CFR 173.403(y) and:
  - (a) Class A explosives as defined in 49 CFR 173.53;
  - (b) Class B explosives as defined in 49 CFR 173.88;
  - (c) Poison A as defined in 49 CFR 173.26; and
  - (d) Flammable solids (DANGEROUS WHEN WET labels only) as defined in 49 CFR 173.150, which are subject to the requirements for placards in Table 1 of 49 CFR 172.504.
3. "Storage" means keeping any hazardous material for more than 48 hours.

##### 705.320 Activities for which permit required.

A person shall not:

1. Load or unload hazardous material or containers carrying hazardous material onto or from railroad equipment on property owned by or under the control of a railroad;
2. Transfer hazardous material from property owned by or under the control of a railroad to another means of transportation; or
3. Store hazardous material on property owned by or under the control of a railroad, except a through track, without a permit issued by the commission.

##### 705.330 Application for permit; fee.

1. An application for a permit must include:
  - (a) A map of the proposed site for loading, unloading, storage or transfer, including the indicators of its location on the track and all structures at the site;
  - (b) A report identifying each switch, siding, spur or branch of track at the site and its purpose;
  - (c) A copy of any report made by a federal or state inspector during the preceding 6 months on defects in the track and the remedial action taken;
  - (d) A summary of all major construction or other work on the track at the site during the preceding year;
  - (e) A summary of all hazardous material carried by the railroad during the preceding 12 months;
  - (f) A summary of all unintended releases of hazardous material during the preceding 12 months which were reported by the applicant pursuant to 49 C.F.R. §§ 171.16 and 171.17;

(g) An outline of the procedure to be used in the loading, unloading, transfer or storage of the hazardous material;

(h) A description of the measures to be used by the railroad to ensure that the hazardous material is safe from vandalism, theft or sabotage; and

(i) An outline of all plans to be used in the event of an accident.

2. The application must be accompanied by a fee of \$200.

##### 705.340 Evaluation of application.

In evaluating an application for a permit, the commission will consider:

1. The topography of the proposed site;
2. The proximity of the proposed site to:
  - (a) Centers of population;
  - (b) Heavily traveled highways;
  - (c) Hospitals;
  - (d) Schools;
  - (e) Sources of water; and
  - (f) Other sites for the storage of hazardous material;
3. The expected duration of the operation at the site;
4. The availability of alternative sites;
5. The quality of the track;
6. The security at the site.
7. The plans to be used in the event of an accident at the site;
8. The equipment and resources available in the event of an accident at the site; and
9. Any other pertinent information requested by the commission.

##### 705.350 Expiration and renewal of permit.

1. A permit issued by the commission is valid for 1 year. Upon a showing of compelling need, the commission may issue a temporary permit which is valid while the application for an annual permit is pending.

2. An annual permit may be renewed if the applicant:

- (a) Certifies that the information submitted in the original application is still correct, or he files such amendments to previously submitted information as are necessary to keep the information current; and
- (b) Files a statement:

(1) Describing any relevant accident or release of hazardous materials since the issuance or renewal of the permit, or if an accident or release has not occurred, a certification to that effect; and

(2) Summarizing the loading, unloading, transfer or storage conducted pursuant to the permit, as well as any incident involving the hazardous material.

3. An application for renewal must be submitted at least 60 days before the expiration of the permit and be accompanied by a fee of \$200.

4. If, at least 60 days before the expiration of the permit, the holder of a permit files an application for renewal which is complete and conforms with the requirements of this section, the permit does not expire until the application for renewal has been finally determined.

##### 705.360 Suspension or revocation of permit.

A permit may be suspended or revoked by the commission if:

1. An activity is being performed in violation of the terms of the permit;

2. The suspension or revocation is necessary to protect against risks to life and property; or

3. The permit was issued on the basis of false, fraudulent or misleading representations or information.

*705.370 Notice of application; dismissal of application for lack of information.*

1. The commission will give notice of any application received by it for a permit or renewal of a permit at least 30 days before the date on which the commission intends to take action.

2. The commission will dismiss an application for a permit without prejudice if:

(a) There is insufficient information upon which to issue a permit; or

(b) Additional information is requested by the commission from the applicant but not submitted.

*705.380 Adoption of federal regulations by reference.*

1. Every railroad subject to regulation by the commission shall comply with the provisions of 49 CFR Parts 171, 172, 173 and 174, as those parts existed on November 1,

1985. Those parts are hereby adopted by reference.

2. A copy of a publication containing Parts 100 to 177, inclusive, of Title 49 of the Code of Federal Regulations may be obtained at a price of \$14 from the Superintendent of Documents, United States Government Printing Office, Washington, DC 20402.

[FR Doc. 86-26523 Filed 11-24-86; 8:45 am]

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**Federal Register**

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**Tuesday  
November 25, 1986**

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**Part IX**

**Environmental  
Protection Agency**

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**40 CFR Part 763**

**Strategies for Implementing the Asbestos  
Hazard Emergency Response Act; Open  
Meeting; Notice**

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 763

[OPTS-62049; FRL 3119-8]

### Strategies for Implementing the Asbestos Hazard Emergency Response Act; Open Meeting

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of open meeting.

**SUMMARY:** There will be an open meeting to discuss the strategies EPA will use to implement the Asbestos Hazardous Emergency Response Act (AHERA). EPA invites interested persons to attend.

**DATE:** The meeting will be held on Monday, December 8, 1986, from 1 p.m. to 4 p.m..

**ADDRESS:** The meeting will be held in: North Conference Room 3, Washington Information Center, Environmental Protection Agency, 401 M Street SW., Washington, DC 20460.

**FOR FURTHER INFORMATION CONTACT:** Edward A. Klein, Director, Office of TSCA Assistance (TS-799), Office of Toxic Substances, Environmental Protection Agency, Room E-543, 401 M Street SW., Washington, DC 20460 (202-554-1404).

#### SUPPLEMENTARY INFORMATION:

#### I. Background

On October 22, 1986, President Reagan signed into law the Asbestos Hazard Emergency Act of 1986, Public Law 99-519. AHERA requires EPA to promulgate regulations pertaining to the inspection and abatement of asbestos-containing materials (ACM) in public and private schools. Specifically, AHERA also requires EPA to develop regulations which include requirements for local education agencies (LEAs) to conduct inspections of their school buildings for asbestos-containing materials (ACM), develop asbestos management plans, submit these plans to their State Governor, and implement appropriate response actions. Under AHERA, EPA must develop model State accreditation programs for persons who work in the asbestos abatement industry. States are required to initiate accreditation programs for persons who perform inspections, prepare management plans, and conduct response actions. Finally, AHERA requires EPA to conduct studies on asbestos-related issues.

AHERA provides specific deadlines for EPA, LEAs, and States to carry out the provisions of the Act. Therefore,

EPA is holding an open meeting on December 8, 1986, so that persons who may be affected by AHERA and any regulations or policies EPA may develop under the Act, have an opportunity to discuss EPA's schedule for, and their participation in, the regulatory development process.

#### II. Major Requirements of AHERA

Under AHERA, EPA is directed to promulgate regulations which provide a framework for addressing asbestos problems in public and private schools. The statute sets deadlines of 180 days after enactment for EPA to issue proposed rules and 360 days for issuance of final rules. EPA must develop regulations which include requirements for: (1) The inspection of all public and private school buildings for ACM; (2) the identification of circumstances requiring response actions; (3) descriptions of the appropriate response actions; (4) the implementation of response actions; (5) the establishment of a periodic surveillance program for ACM, or an operations and maintenance program for friable ACM; (6) the preparation and implementation of asbestos management plans by LEAs; (7) the submission of the management plans to State Governors, who may review the plans and approve or disapprove them; and (8) the transportation and disposal of waste ACM.

AHERA also provides that no person may inspect for ACM in a school building, prepare a management plan for an LEA, or design or carry out response actions unless that person has been accredited under a State program in accordance with AHERA or has been accredited pursuant to a course approved by EPA. To implement this provision EPA must, within 180 days of enactment of AHERA, develop a model State accreditation program. Further, within 180 days after the date of enactment of AHERA, EPA must ensure that any EPA-approved course is consistent with EPA's model accreditation plan. State legislatures are to adopt accreditation programs at least as stringent as EPA's model.

Finally, EPA will conduct two studies under AHERA; one relating to asbestos in public buildings, a second on the issue of liability insurance and the asbestos abatement industry.

#### III. Issues To Be Discussed at the Meeting

EPA has begun to analyze the requirements of the legislation and identify issues to be resolved during the implementation of AHERA. To encourage public participation in the

regulatory development process, the Agency will hold an open meeting for interested parties to discuss the requirements of AHERA on Monday, December 8, 1986, from 1 to 4 p.m. at the Washington Information Center in the North Conference Room 3. Interested parties should include persons and organizations who might be affected by regulations or policies developed under the Act.

Topics to be covered at the meeting will include: (1) Key issues and preferred policy outcomes regarding regulations on LEA inspections, management plans, and periodic surveillance activities for ACM; (2) key issues and preferred policy outcomes regarding regulations on response actions and operations and maintenance plans for ACM; and (3) key issues and preferred policy outcomes regarding State accreditation programs for persons who inspect for asbestos, develop management plans, or conduct response actions. Interested parties are invited to consult the advance notice of proposed rulemaking published in the *Federal Register* of August 12, 1986 (51 FR 28914) for a discussion of several related options which were under consideration by EPA before the passage of AHERA. Copies of the notice are available by contacting the Office of TSCA Assistance.

EPA is considering a variety of approaches to encourage public participation in the regulatory development process. The Agency is interested in discussing suggestions for enhancing public participation at the open meeting. Interested parties should also be prepared to discuss approaches which will maximize the benefit of public participation in the development of regulations and other policies under AHERA.

#### IV. Potential Interested Parties

When considering persons and organizations who may be interested in attending the open meeting, EPA identified the following categories of potential interested parties.

##### *Education Groups*

National Parents and Teachers' Association  
Council on American Private Education  
United States Catholic Congress  
National School Boards Association

##### *Unions*

National Education Association  
Service Employees International Union

##### *Industry Groups*

Asbestos Information Association

Safe Building Alliance  
American Wall and Ceiling Institute

*State Interest Groups*

National Governors' Association  
National Council of State Legislatures

These, and any other interested persons or groups, are specifically invited to attend the meeting and participate in the discussion.

Dated: November 21, 1986.

**Susan F. Vogt,**  
*Acting Deputy Director, Office of Toxic Substances.*

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